UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

(Mark One)

x **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.**
FOR THE QUARTERLY PERIOD ENDED SEPTEMBER 30, 2018

or

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.**
FOR THE TRANSITION PERIOD FROM TO

Commission File Number: 001-36326

ENDO INTERNATIONAL PLC
(Exact name of registrant as specified in its charter)

Ireland	**68-0683755**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)
First Floor, Minerva House, Simmonscourt Road, Ballsbridge, Dublin 4, Ireland	**Not Applicable**
(Address of Principal Executive Offices)	(Zip Code)

011-353-1-268-2000
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Name of each exchange on which registered**
Ordinary shares, nominal value $0.0001 per share	**The NASDAQ Global Market**

Securities registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☑ No o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☑	Accelerated filer	o
Non-accelerated filer	o (Do not check if a smaller reporting company)	Smaller reporting company	o
Emerging Growth Company	o		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes o No ☑

Indicate the number of shares outstanding of each of the issuer's classes of ordinary shares, as of the latest practicable date.

Ordinary shares, $0.0001 par value	Number of ordinary shares outstanding as of November 1, 2018: 224,344,760

ENDO INTERNATIONAL PLC

INDEX

FORWARD-LOOKING STATEMENTS

Statements contained or incorporated by reference in this document contain information that includes or is based on “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended (Securities Act) and Section 21E of the Securities Exchange Act of 1934, as amended (Exchange Act). These statements, including estimates of future revenues, future expenses, future net income and future net income per share, contained in the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” which is included in this document, are subject to risks and uncertainties. Forward-looking statements include the information concerning our possible or assumed results of operations. We have tried, whenever possible, to identify such statements by words such as “believes,” “expects,” “anticipates,” “intends,” “estimates,” “plan,” “projected,” “forecast,” “will,” “may” or similar expressions. We have based these forward-looking statements on our current expectations and projections about the growth of our business, our financial performance and the development of our industry. Because these statements reflect our current views concerning future events, these forward-looking statements involve risks and uncertainties. Investors should note that many factors, as more fully described under the caption “Risk Factors” in Part II, Item 1A of this document and in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2017, as supplemented and amended by the risk factors previously disclosed by us in Part II, Item 1A under the caption “Risk Factors” of our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2018, and as otherwise enumerated herein, could affect our future financial results and could cause our actual results to differ materially from those expressed in forward-looking statements contained or incorporated by reference in this document.

We do not undertake any obligation to update our forward-looking statements after the date of this document for any reason, even if new information becomes available or other events occur in the future, except as may be required under applicable securities law. You are advised to consult any further disclosures we make on related subjects in our reports filed with the Securities and Exchange Commission (SEC) and with securities regulators in Canada on the System for Electronic Document Analysis and Retrieval (SEDAR). Also note that, in Part II, Item 1A of this document and in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2017, as supplemented and amended by the risk factors previously disclosed by us in Part II, Item 1A under the caption “Risk Factors” of our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2018, and as otherwise enumerated herein, we provide a cautionary discussion of the risks, uncertainties and possibly inaccurate assumptions relevant to our business. These are factors that, individually or in the aggregate, we think could cause our actual results to differ materially from expected and historical results. We note these factors for investors as permitted by Section 27A of the Securities Act and Section 21E of the Exchange Act. You should understand that it is not possible to predict or identify all such factors. Consequently, you should not consider this to be a complete discussion of all potential risks or uncertainties.

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

ENDO INTERNATIONAL PLC
CONDENSED CONSOLIDATED BALANCE SHEETS (UNAUDITED)
(In thousands, except share and per share data)

	September 30, 2018	December 31, 2017
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 1,118,885	$ 986,605
Restricted cash and cash equivalents	289,667	320,453
Accounts receivable	467,156	517,436
Inventories, net	332,787	391,437
Prepaid expenses and other current assets	50,697	43,098
Income taxes receivable	16,407	12,048
Total current assets	$ 2,275,599	$ 2,271,077
MARKETABLE SECURITIES	1,693	1,456
PROPERTY, PLANT AND EQUIPMENT, NET	495,546	523,971
GOODWILL	4,056,668	4,450,082
OTHER INTANGIBLES, NET	3,624,216	4,317,684
DEFERRED INCOME TAXES	6	11,582
OTHER ASSETS	67,934	59,728
TOTAL ASSETS	$ 10,521,662	$ 11,635,580
LIABILITIES AND SHAREHOLDERS' (DEFICIT) EQUITY		
CURRENT LIABILITIES:		
Accounts payable and accrued expenses	$ 1,019,004	$ 1,096,825
Current portion of legal settlement accrual	966,633	1,087,793
Current portion of long-term debt	34,150	34,205
Income taxes payable	1,681	2,086
Total current liabilities	$ 2,021,468	$ 2,220,909
DEFERRED INCOME TAXES	43,630	43,131
LONG-TERM DEBT, LESS CURRENT PORTION, NET	8,228,612	8,242,032
LONG-TERM LEGAL SETTLEMENT ACCRUAL, LESS CURRENT PORTION	35,450	210,450
OTHER LIABILITIES	411,961	434,178
COMMITMENTS AND CONTINGENCIES (NOTE 14)		
SHAREHOLDERS' (DEFICIT) EQUITY:		
Euro deferred shares, $0.01 par value; 4,000,000 shares authorized and issued at both September 30, 2018 and December 31, 2017	46	48
Ordinary shares, $0.0001 par value; 1,000,000,000 shares authorized; 224,288,553 and 223,331,706 shares issued and outstanding at September 30, 2018 and December 31, 2017, respectively	22	22
Additional paid-in capital	8,830,351	8,791,170
Accumulated deficit	(8,833,024)	(8,096,539)
Accumulated other comprehensive loss	(216,854)	(209,821)
Total shareholders' (deficit) equity	$ (219,459)	$ 484,880
TOTAL LIABILITIES AND SHAREHOLDERS' (DEFICIT) EQUITY	$ 10,521,662	$ 11,635,580

See Notes to Condensed Consolidated Financial Statements.

ENDO INTERNATIONAL PLC
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (UNAUDITED)
(In thousands, except per share data)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
TOTAL REVENUES	$ 745,466	$ 786,887	$ 2,160,689	$ 2,700,218
COSTS AND EXPENSES:				
Cost of revenues	412,965	514,522	1,198,468	1,722,885
Selling, general and administrative	163,791	135,880	478,615	468,675
Research and development	39,683	39,644	160,431	123,522
Litigation-related and other contingencies, net	(1,750)	(12,352)	15,370	(14,016)
Asset impairment charges	142,217	94,924	613,400	1,023,930
Acquisition-related and integration items	1,288	16,641	13,284	31,711
OPERATING LOSS FROM CONTINUING OPERATIONS	$ (12,728)	$ (2,372)	$ (318,879)	$ (656,489)
INTEREST EXPENSE, NET	131,847	127,521	385,896	361,267
LOSS ON EXTINGUISHMENT OF DEBT	—	—	—	51,734
OTHER INCOME, NET	(1,507)	(2,097)	(33,216)	(10,843)
LOSS FROM CONTINUING OPERATIONS BEFORE INCOME TAX	$ (143,068)	$ (127,796)	$ (671,559)	$ (1,058,647)
INCOME TAX EXPENSE (BENEFIT)	3,003	(28,109)	24,729	(97,517)
LOSS FROM CONTINUING OPERATIONS	$ (146,071)	$ (99,687)	$ (696,288)	$ (961,130)
DISCONTINUED OPERATIONS, NET OF TAX (NOTE 3)	(27,134)	3,017	(43,273)	(705,886)
NET LOSS	$ (173,205)	$ (96,670)	$ (739,561)	$ (1,667,016)
NET (LOSS) INCOME PER SHARE—BASIC:				
Continuing operations	$ (0.65)	$ (0.45)	$ (3.11)	$ (4.31)
Discontinued operations	(0.12)	0.02	(0.19)	(3.16)
Basic	$ (0.77)	$ (0.43)	$ (3.30)	$ (7.47)
NET (LOSS) INCOME PER SHARE—DILUTED:				
Continuing operations	$ (0.65)	$ (0.45)	$ (3.11)	$ (4.31)
Discontinued operations	(0.12)	0.02	(0.19)	(3.16)
Diluted	$ (0.77)	$ (0.43)	$ (3.30)	$ (7.47)
WEIGHTED AVERAGE SHARES:				
Basic	224,132	223,299	223,829	223,157
Diluted	224,132	223,299	223,829	223,157

See Notes to Condensed Consolidated Financial Statements.

ENDO INTERNATIONAL PLC
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS (UNAUDITED)
(In thousands)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
NET LOSS	$ (173,205)	$ (96,670)	$ (739,561)	$ (1,667,016)
OTHER COMPREHENSIVE INCOME (LOSS):				
Net unrealized gain on securities, net of tax:				
Unrealized gain arising during the period	$ —	$ 188	$ —	$ 333
Less: reclassification adjustments for (gain) loss realized in net loss	—	—	—	188	—	—	—	333
Net unrealized gain (loss) on foreign currency:				
Foreign currency translation gain (loss) arising during the period	$ 4,735	$ 9,941	$ (7,033)	$ 35,415
Less: reclassification adjustments for loss realized in net loss	—	4,735	29,325	39,266	—	(7,033)	29,325	64,740
OTHER COMPREHENSIVE INCOME (LOSS)	$ 4,735	$ 39,454	$ (7,033)	$ 65,073
COMPREHENSIVE LOSS	$ (168,470)	$ (57,216)	$ (746,594)	$ (1,601,943)

See Notes to Condensed Consolidated Financial Statements.

ENDO INTERNATIONAL PLC
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)
(In thousands)

	Nine Months Ended September 30,	
	2018	**2017**
OPERATING ACTIVITIES:		
Net loss	$ (739,561)	$ (1,667,016)
Adjustments to reconcile Net loss to Net cash provided by operating activities:		
Depreciation and amortization	556,503	742,936
Inventory step-up	261	281
Share-based compensation	43,722	40,252
Amortization of debt issuance costs and discount	15,289	17,698
Deferred income taxes	13,118	(239,174)
Change in fair value of contingent consideration	11,731	23,574
Loss on extinguishment of debt	—	51,734
Asset impairment charges	613,400	1,023,930
Gain on sale of business and other assets	(29,859)	(5,074)
Changes in assets and liabilities which provided (used) cash:		
Accounts receivable	31,634	471,448
Inventories	52,499	91,047
Prepaid and other assets	993	11,626
Accounts payable, accrued expenses and other liabilities	(367,979)	(159,245)
Income taxes payable/receivable	(4,759)	18,145
Net cash provided by operating activities	$ 196,992	$ 422,162
INVESTING ACTIVITIES:		
Purchases of property, plant and equipment, excluding capitalized interest	(56,544)	(94,102)
Capitalized interest payments	(2,569)	—
Decrease in notes receivable	—	7,000
Proceeds from sale of business and other assets, net	43,753	96,066
Other investing activities	1,678	—
Net cash (used in) provided by investing activities	$ (13,682)	$ 8,964

	Nine Months Ended September 30,	
	2018	2017
FINANCING ACTIVITIES:		
Proceeds from issuance of notes	—	300,000
Proceeds from issuance of term loans	—	3,415,000
Principal payments on term loans	(25,614)	(3,722,413)
Principal payments on other indebtedness	(3,921)	(4,912)
Deferred financing fees	—	(57,358)
Payments for contingent consideration	(28,664)	(63,712)
Payments of tax withholding for restricted shares	(5,082)	(1,958)
Exercise of options	473	—
Net cash used in financing activities	$ (62,808)	$ (135,353)
Effect of foreign exchange rate	(608)	3,983
Movement in cash held for sale	—	(1,450)
NET INCREASE IN CASH, CASH EQUIVALENTS, RESTRICTED CASH AND RESTRICTED CASH EQUIVALENTS	$ 119,894	$ 298,306
CASH, CASH EQUIVALENTS, RESTRICTED CASH AND RESTRICTED CASH EQUIVALENTS, BEGINNING OF PERIOD	1,311,014	805,180
CASH, CASH EQUIVALENTS, RESTRICTED CASH AND RESTRICTED CASH EQUIVALENTS, END OF PERIOD	$ 1,430,908	$ 1,103,486
SUPPLEMENTAL INFORMATION:		
Cash paid into Qualified Settlement Funds for mesh legal settlements	$ 216,770	$ 623,128
Cash paid out of Qualified Settlement Funds for mesh legal settlements	$ 248,485	$ 545,379
Other cash distributions for mesh legal settlements	$ 17,114	$ 3,625

See Notes to Condensed Consolidated Financial Statements.

ENDO INTERNATIONAL PLC
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)
FOR THE THREE AND NINE MONTHS ENDED SEPTEMBER 30, 2018

NOTE 1. BASIS OF PRESENTATION

Endo International plc is an Ireland-domiciled, global specialty pharmaceutical company focused on generic and branded pharmaceuticals. We aim to be the premier partner to healthcare professionals and payment providers, delivering an innovative suite of generic and branded drugs to meet patients' needs.

Unless otherwise indicated or required by the context, references throughout to "Endo," the "Company," "we," "our," or "us" refer to financial information and transactions of Endo International plc and its subsidiaries.

The accompanying unaudited Condensed Consolidated Financial Statements of Endo International plc and its subsidiaries have been prepared in accordance with United States (U.S.) generally accepted accounting principles (GAAP) for interim financial information and the instructions to Form 10-Q and Article 10 of Regulation S-X of the Securities and Exchange Commission for interim financial information. Accordingly, they do not include all of the information and footnotes required by GAAP for complete financial statements. In the opinion of management, the accompanying Condensed Consolidated Financial Statements of Endo International plc and its subsidiaries, which are unaudited, include all normal and recurring adjustments necessary for a fair statement of the Company's financial position as of September 30, 2018 and the results of our operations and our cash flows for the periods presented. Operating results for the three and nine months ended September 30, 2018 are not necessarily indicative of the results that may be expected for the year ending December 31, 2018. The year-end Condensed Consolidated Balance Sheet data as of December 31, 2017 was derived from audited financial statements.

The information included in this Quarterly Report on Form 10-Q should be read in conjunction with our Consolidated Financial Statements and accompanying notes included in our Annual Report on Form 10-K for the year ended December 31, 2017.

Certain prior period amounts have been reclassified to conform to the current period presentation as a result of our fourth-quarter 2017 adoption of Accounting Standards Update (ASU) No. 2016-18 *"Statement of Cash Flows (Topic 230) - Restricted Cash"* (ASU 2016-18). The table below presents the effects of ASU 2016-18 on the Company's Condensed Consolidated Statement of Cash Flows for the nine months ended September 30, 2017 (in thousands):

	Prior to Adoption	Impact of Adoption	Subsequent to Adoption
Net cash provided by operating activities	$ 424,062	$ (1,900)	$ 422,162
Net cash (used in) provided by investing activities	(69,802)	78,766	8,964
Net cash used in financing activities	(135,353)	—	(135,353)
Effect of foreign exchange rate	3,686	297	3,983
Movement in cash held for sale	(1,450)	—	(1,450)
Net change (1)	$ 221,143	$ 77,163	$ 298,306
Beginning-of-period balance (2)	517,250	287,930	805,180
End-of-period balance (2)	$ 738,393	$ 365,093	$ 1,103,486

(1) This line refers to the "Net increase in cash and cash equivalents" prior to the adoption of ASU 2016-18 and the "Net increase in cash, cash equivalents, restricted cash and restricted cash equivalents" after the adoption.
(2) These lines refer to the beginning or end of period amounts of "Cash and cash equivalents" prior to the adoption of ASU 2016-18 and the beginning or end of period amounts of "Cash, cash equivalents, restricted cash and restricted cash equivalents" after the adoption.

Additionally, the information in this Quarterly Report on Form 10-Q has been retrospectively recast to reflect the change in reportable segments referenced in Note 6. Segment Results.

NOTE 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Significant Accounting Policies Updated since December 31, 2017

Significant changes to our significant accounting policies since December 31, 2017 are detailed below. For additional discussion of the Company's significant accounting policies, see Note 2. Summary of Significant Accounting Policies in the Consolidated Financial Statements, included in Part IV, Item 15 of our Annual Report on Form 10-K for the year ended December 31, 2017, filed with the Securities and Exchange Commission on February 27, 2018.

Revenue Recognition. The Company adopted *Accounting Standards Codification Topic 606, Revenue from Contracts with Customers* (ASC 606) on January 1, 2018 using the modified retrospective method for all revenue-generating contracts, including modifications thereto, that were not completed contracts at the date of adoption. For further discussion of the impact of adoption, refer to the "Recent Accounting Pronouncements Adopted or Otherwise Effective as of September 30, 2018" section below. ASC 606 applies to contracts with commercial substance that establish the payment terms and each party's rights regarding the goods or services to be transferred, to the extent collection of substantially all of the related consideration is probable. Under ASC 606, we recognize revenue for contracts meeting these criteria when (or as) we satisfy our performance obligations for such contracts by transferring control of the underlying promised goods or services to our customers. The amount of revenue we recognize reflects our estimate of the consideration we expect to be entitled to receive, subject to certain constraints, in exchange for such goods or services. This amount is referred to as the transaction price.

Our revenue consists almost entirely of sales of our pharmaceutical products to customers, whereby we ship products to a customer pursuant to a purchase order and invoice the customer upon shipment. For contracts such as these, revenue is recognized when our contractual performance obligations have been fulfilled and control has been transferred to the customer pursuant to the contract's terms, which is generally upon delivery to the customer. The amount of revenue we recognize is equal to the fixed amount of the transaction price, adjusted for our estimates of a number of significant variable components including, but not limited to, estimates for chargebacks, rebates, sales incentives and allowances, distribution service agreement (DSA) and other fees for services, returns and allowances. The Company utilizes the expected value method when estimating the amount of variable consideration to include in the transaction price with respect to each of the foregoing variable components and the most likely amount method when estimating the amount of variable consideration to include in the transaction price with respect to future potential milestone payments that do not qualify for the sales- and usage-based royalty exception. Variable consideration is included in the transaction price only to the extent that it is probable that a significant revenue reversal will not occur when the uncertainty associated with the variable consideration is resolved. Payment terms for these types of contracts generally fall within 30 to 90 days of invoicing. Our most significant components of variable consideration are further described below. Our estimates for these components are based on factors such as historical experience, estimated future trends, estimated customer inventory levels, current contract sales terms with our direct and indirect customers and other competitive factors.

Returns and Allowances. Consistent with industry practice, we maintain a return policy that allows our customers to return products within a specified period of time both subsequent to and, in certain cases, prior to the products' expiration date. Our return policy generally allows customers to receive credit for expired products within six months prior to expiration and within one year after expiration. Our provision for returns and allowances consists of our estimates for future product returns, pricing adjustments and delivery errors.

Rebates. Our provision for rebates, sales incentives and other allowances can generally be categorized into the following four types:

- direct rebates;
- indirect rebates;
- governmental rebates, including those for Medicaid, Medicare and TRICARE, among others; and
- managed-care rebates.

We establish contracts with wholesalers, chain stores and indirect customers that provide for rebates, sales incentives, DSA fees and other allowances. Some customers receive rebates upon attaining established sales volumes. Direct rebates are generally rebates paid to direct purchasing customers based on a percentage applied to a direct customer's purchases from us, including fees paid to wholesalers under our DSAs, as described above. Indirect rebates are rebates paid to indirect customers which have purchased our products from a wholesaler under a contract with us.

We are subject to rebates on sales made under governmental and managed-care pricing programs based on relevant statutes with respect to governmental pricing programs and contractual sales terms with respect to managed-care providers and group purchasing organizations. For example, we are required to provide a 50% discount on our brand-name drugs to patients who fall within the Medicare Part D coverage gap, also referred to as the donut hole.

We participate in various federal and state government-managed programs whereby discounts and rebates are provided to participating government entities. For example, Medicaid rebates are amounts owed based upon contractual agreements or legal requirements with public sector (Medicaid) benefit providers after the final dispensing of the product by a pharmacy to a benefit plan participant.

Chargebacks. We market and sell products to both: (i) direct customers including wholesalers, distributors, warehousing pharmacy chains and other direct purchasing groups and (ii) indirect customers including independent pharmacies, non-warehousing chains, managed-care organizations, group purchasing organizations and government entities. We enter into agreements with certain of our indirect customers to establish contract pricing for certain products. These indirect customers then independently select a wholesaler from which to purchase the products at these contracted prices. Alternatively, we may pre-authorize wholesalers to offer specified contract pricing to other indirect customers. Under either arrangement, we provide credit to the wholesaler for any difference between the contracted price with the indirect customer and the wholesaler's invoice price. Such credit is called a chargeback.

New Significant Accounting Policies Added since December 31, 2017

Contract Assets and Contract Liabilities. Contract assets represent the Company's right to consideration in exchange for goods or services that the Company has transferred to a customer when that right is conditioned on something other than the passage of time including, for example, the entity's future performance. The Company records revenue and a corresponding contract asset when it fulfills a contractual performance obligation, but must also fulfill one or more additional performance obligations before being entitled to payment. Once the Company's right to consideration becomes unconditional, the contract asset amount is reclassified as Accounts receivable.

Contract liabilities represent the Company's obligation to transfer goods or services to a customer. The Company records a contract liability generally upon receipt of consideration in advance of fulfilling one or more of its contractual performance obligations. Upon completing the corresponding performance obligation, the contract liability amount is reversed and revenue is recognized.

Contract assets and liabilities related to rights and obligations arising from a single contract, or a series of contracts combined and accounted for as a single contract, are generally presented on a net basis. Contract assets and liabilities are further described in Note 11. Contract Assets and Liabilities.

Recent Accounting Pronouncements

Recently Issued Accounting Pronouncements Not Yet Adopted as of September 30, 2018

In February 2016, the Financial Accounting Standards Board (FASB) issued ASU No. 2016-02, *"Leases (Topic 842)"* (ASU 2016-02) to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. Under the new guidance, lessees are required to recognize a lease liability, which represents the discounted obligation to make future minimum lease payments, and a corresponding right-of-use asset on the balance sheet for most leases. In July 2018, the FASB issued ASU No. 2018-10, *"Codification Improvements to Topic 842, Leases"* (ASU 2018-10), which provides narrow amendments to clarify how to apply certain aspects of the new lease standard, and ASU No. 2018-11, *"Leases (Topic 842) - Targeted Improvements"* (ASU 2018-11), which addresses implementation issues related to the new lease standard. This guidance will be effective for the Company beginning in the first quarter of 2019, with early application permitted. The Company plans to adopt this guidance in the first quarter of 2019 using the modified retrospective approach and will recognize a cumulative-effect adjustment to the opening balance of Accumulated deficit in that period. This guidance includes a number of optional practical expedients that the Company may elect to apply, including an expedient that permits lease agreements that are twelve months or less to be excluded from the balance sheet. The Company is continuing to evaluate the impact that this new guidance will have on its consolidated financial statements, including its disclosures. It is expected that the primary impact upon adoption will be the recognition, on a discounted basis, of the Company's minimum commitments under noncancelable operating leases as right of use assets and obligations on the consolidated balance sheets. This will result in a significant increase in assets and liabilities on the Company's consolidated balance sheets. In preparation for the adoption of this guidance, the Company is continuing the process of identifying and validating the Company's lease information and evaluating the impact that this new guidance will have on its processes and controls.

In February 2018, the FASB issued ASU No. 2018-02, *"Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*" (ASU 2018-02). ASU 2018-02 allows for a reclassification from accumulated other comprehensive income or loss to retained earnings or accumulated deficit for stranded tax effects resulting from the Tax Cuts and Jobs Act of 2017 (TCJA). ASU 2018-02 also requires certain related disclosures. ASU 2018-02 is effective for annual periods, and interim periods within those annual periods, beginning after December 15, 2018 and should be applied either in the period of adoption or retrospectively to each period in which the effect of the change in the U.S. federal corporate income tax rate in the TCJA is recognized. Early adoption is permitted. The Company is currently evaluating the impact of ASU 2018-02 on the Company's consolidated results of operations and financial position.

In July 2018, the FASB issued ASU No. 2018-09, *"Codification Improvements"* (ASU 2018-09). ASU 2018-09 makes changes to a variety of topics to clarify, correct errors in or make minor improvements to the Accounting Standards Codification. Certain of these provisions are effective immediately; however, these provisions did not have a material impact on the Company's financial statements or disclosures. The remaining provisions are generally effective for public business entities for annual periods, and interim periods within those annual periods, beginning after December 15, 2018. The Company is currently evaluating the impact of these remaining provisions of ASU 2018-09 on the Company's consolidated results of operations and financial position.

In August 2018, the FASB issued ASU No. 2018-13, "*Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement*" (ASU 2018-13). ASU 2018-13 modifies the disclosure requirements on fair value measurements in *Topic 820, Fair Value Measurement*. ASU 2018-13 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Certain aspects of ASU 2018-13 require prospective treatment, while others require retrospective treatment. Early adoption is permitted. The Company is currently evaluating the impact of ASU 2018-13 on the Company's disclosures.

In August 2018, the FASB issued ASU No. 2018-15, "*Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract*" (ASU 2018-15). ASU 2018-15 aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (including hosting arrangements where a software license is deemed to exist). ASU 2018-15 also requires the customer to expense any such capitalized implementation costs over the term of the hosting arrangement and to apply the existing impairment guidance for long-lived assets to such capitalized costs. Additionally, ASU 2018-15 sets forth required disclosures and guidance on financial statement classification for expenses, cash flows and balances related to implementation costs within the scope of ASU 2018-15. ASU 2018-15 is effective for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years. ASU 2018-15 may be applied either retrospectively or prospectively to all implementation costs incurred after the date of adoption and early adoption is permitted. The Company is currently evaluating the impact of ASU 2018-15 on the Company's consolidated results of operations, financial position and disclosures.

In November 2018, the FASB issued ASU No. 2018-18, "*Clarifying the Interaction Between Topic 808 and Topic 606*" (ASU 2018-18). The main provisions of ASU 2018-18 include: (i) clarifying that certain transactions between collaborative arrangement participants should be accounted for as revenue when the collaborative arrangement participant is a customer in the context of a unit of account and (ii) precluding the presentation of transactions with collaborative arrangement participants that are not directly related to sales to third parties together with revenue. ASU 2018-18 is effective for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years. ASU 2018-18 should generally be applied retrospectively to the date of initial application of Topic 606 (January 1, 2018 for the Company) and early adoption is permitted. The Company is currently evaluating the impact of ASU 2018-18 on the Company's consolidated results of operations, financial position and disclosures.

Recent Accounting Pronouncements Adopted or Otherwise Effective as of September 30, 2018

In May 2014, the FASB issued ASU No. 2014-09, "*Revenue from Contracts with Customers*" (ASU 2014-09), which was subsequently amended and supplemented by several additional ASUs including:

- ASU No. 2015-14, "*Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date,*" (issued in August 2015), which deferred the effective date of ASU 2014-09 by one year, such that ASU 2014-09 became effective for Endo for annual and interim reporting periods beginning after December 15, 2017;
- ASU No. 2016-08, "*Revenue from Contracts with Customers (Topic 606): Principal versus Agent Consideration (Reporting Revenue Gross versus Net)*" (issued in March 2016), which clarified the guidance on reporting revenue as a principal versus agent;
- ASU No. 2016-10, "*Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing*" (issued in April 2016), which clarified the guidance on identifying performance obligations and accounting for intellectual property licenses; and
- ASU No. 2016-12, "*Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients*" and ASU No. 2016-20, "*Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers,*" (issued in May 2016 and December 2016, respectively), which amended certain narrow aspects of Topic 606.

These ASUs have generally been codified in Accounting Standards Codification Topic 606 "*Revenue from Contracts with Customers*", and are collectively referred to herein as ASC 606. ASC 606 supersedes the revenue recognition requirements in Topic 605 "*Revenue Recognition*" (ASC 605), and requires entities to recognize revenue when control of promised goods or services is transferred to customers at an amount that reflects the consideration to which entities expect to be entitled in exchange for those goods or services.

The Company adopted ASC 606 on January 1, 2018 using the modified retrospective method for all revenue-generating contracts, including modifications thereto, that were not completed contracts at the date of adoption. Under the modified retrospective method, results beginning on January 1, 2018 are presented under ASC 606, while the comparative prior period results continue to be presented under ASC 605 based on the accounting standards originally in effect for such periods. As a result of adopting ASC 606, the Company recorded a net decrease of $3.1 million to its accumulated deficit at January 1, 2018, representing the cumulative impact of adopting ASC 606.

The current period impact of adoption on our Condensed Consolidated Statements of Operations and Condensed Consolidated Balance Sheets is as follows (in thousands, except per share amounts):

	Three Months Ended September 30, 2018			Nine Months Ended September 30, 2018		
Statement of Operations:	**Amounts reported under ASC 606**	**Amounts assuming continued application of ASC 605**	**Effect of adoption of ASC 606 (1)**	**Amounts reported under ASC 606**	**Amounts assuming continued application of ASC 605**	**Effect of adoption of ASC 606 (1)**
Total revenues	$ 745,466	$ 747,571	$ (2,105)	$ 2,160,689	$ 2,160,132	$ 557
Cost of revenues	$ 412,965	$ 414,430	$ (1,465)	$ 1,198,468	$ 1,199,042	$ (574)
Other income, net	$ (1,507)	$ (1,507)	$ —	$ (33,216)	$ (32,216)	$ (1,000)
Loss from continuing operations	$ (146,071)	$ (145,431)	$ (640)	$ (696,288)	$ (698,419)	$ 2,131
Net loss	$ (173,205)	$ (172,565)	$ (640)	$ (739,561)	$ (741,692)	$ 2,131
Net loss per share—Basic:						
Continuing operations	$ (0.65)	$ (0.65)	$ —	$ (3.11)	$ (3.12)	$ 0.01
Total basic	$ (0.77)	$ (0.77)	$ —	$ (3.30)	$ (3.31)	$ 0.01
Net loss per share—Diluted:						
Continuing operations	$ (0.65)	$ (0.65)	$ —	$ (3.11)	$ (3.12)	$ 0.01
Total diluted	$ (0.77)	$ (0.77)	$ —	$ (3.30)	$ (3.31)	$ 0.01

(1) Amounts may not add due to rounding.

	At September 30, 2018		
Balance Sheet:	**Amounts reported under ASC 606**	**Amounts assuming continued application of ASC 605**	**Effect of adoption of ASC 606**
Assets:			
Inventories, net	$ 332,787	$ 341,189	$ (8,402)
Prepaid expenses and other current assets	$ 50,697	$ 40,368	$ 10,329
Other assets	$ 67,934	$ 64,972	$ 2,962
Liabilities:			
Accounts payable and accrued expenses	$ 1,019,004	$ 1,019,322	$ (318)
Shareholders' (deficit) equity:			
Accumulated deficit	$ (8,833,024)	$ (8,838,231)	$ 5,207

In May 2017, the FASB issued ASU No. 2017-09 *"Compensation - Stock Compensation"* (ASU 2017-09). ASU 2017-09 provides guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting. It is intended to reduce both (1) diversity in practice and (2) cost and complexity when accounting for changes to the terms or conditions of share-based payment awards. ASU 2017-09 is effective for annual periods, and interim periods within those annual periods, beginning after December 15, 2017. The Company adopted the new standard on January 1, 2018 and the amendments in this update will be applied prospectively to any award modified on or after the adoption date.

NOTE 3. DISCONTINUED OPERATIONS AND DIVESTITURES

Astora

The Company's Astora business ceased business operations on March 31, 2016. The operating results of Astora are reported as Discontinued operations, net of tax in the Condensed Consolidated Statements of Operations for all periods presented. The following table provides the operating results of Astora for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Litigation-related and other contingencies, net	$ 19,000	$ —	$ 19,000	$ 775,684
Loss from discontinued operations before income taxes	$ (27,134)	$ (8,957)	$ (43,273)	$ (813,442)
Income tax benefit	$ —	$ (11,974)	$ —	$ (107,556)
Discontinued operations, net of tax	$ (27,134)	$ 3,017	$ (43,273)	$ (705,886)

Amounts reported in the table above as Litigation-related and other contingencies, net relate to charges for vaginal-mesh-related matters. Loss from discontinued operations before income taxes also includes mesh-related legal defense costs and certain other items.

The cash flows from discontinued operating activities related to Astora included the impact of net losses of $43.3 million and $705.9 million for the nine months ended September 30, 2018 and 2017, respectively, and the impact of cash activity related to vaginal mesh cases. There was no net cash used in discontinued investing activities related to Astora during the nine months ended September 30, 2018 or 2017. There was no depreciation or amortization during the nine months ended September 30, 2018 or 2017 related to Astora.

Refer to Note 14. Commitments and Contingencies for amounts and additional information relating to vaginal mesh-related matters.

Litha

During the fourth quarter of 2016, the Company initiated a process to sell its Litha Healthcare Group Limited and related Sub-Sahara African business assets (Litha) and, on February 27, 2017, the Company entered into a definitive agreement to sell Litha to Acino Pharma AG (Acino). The sale closed on July 3, 2017 and the Company received net cash proceeds of approximately $94.2 million, after giving effect to cash and net working capital purchase price adjustments, as well as a short-term receivable of $4.4 million, which was subsequently collected in October 2017. No additional gain or loss was recognized upon sale. However, in December 2017, Acino became obligated to pay $10.1 million of additional consideration to the Company related to the settlement of certain contingencies set forth in the purchase agreement, which was subsequently paid to the Company in January 2018. In December 2017, the Company recorded a short-term receivable and a gain on the sale of Litha for this amount. The gain was recorded in Other income, net in the Condensed Consolidated Statements of Operations. Litha was part of the Company's International Pharmaceuticals segment. Litha does not meet the requirements for treatment as a discontinued operation.

Somar

On June 30, 2017, the Company entered into a definitive agreement to sell Grupo Farmacéutico Somar, S.A.P.I. de C.V. (Somar) and all of the securities thereof, to AI Global Investments (Netherlands) PCC Limited acting for and on behalf of the Soar Cell (the Purchaser). The sale closed on October 25, 2017 and the Purchaser paid an aggregate purchase price of approximately $124 million in cash, after giving effect to estimated cash, debt and net working capital purchase price adjustments. The Company recognized a $1.3 million loss upon sale. Somar was part of the Company's International Pharmaceuticals segment. Somar does not meet the requirements for treatment as a discontinued operation.

NOTE 4. RESTRUCTURING

January 2017 Restructuring Initiative

On January 26, 2017, the Company announced a restructuring initiative implemented as part of its ongoing organizational review (the January 2017 Restructuring Initiative). This restructuring was intended to further integrate, streamline and optimize the Company's operations by aligning certain corporate and research and development (R&D) functions with its recently restructured U.S. generics and U.S. branded business units in order to create efficiencies and cost savings. As part of this restructuring, the Company undertook certain cost reduction initiatives, including a reduction of approximately 90 positions of its workforce, primarily related to corporate and branded R&D functions in Malvern, Pennsylvania and Chestnut Ridge, New York, a streamlining of general and administrative expenses, an optimization of commercial spend and a refocusing of research and development efforts.

The Company did not incur any pre-tax charges during the three and nine months ended September 30, 2018 as a result of the January 2017 Restructuring Initiative. During the nine months ended September 30, 2017, the Company incurred total pre-tax charges of approximately $15.1 million related to employee separation and other benefit-related costs. Of the total charges incurred, $6.9 million was included in the U.S. Branded - Specialty & Established Pharmaceuticals segment, $4.9 million was included in Corporate unallocated costs and $3.3 million was included in the U.S. Generic Pharmaceuticals segment. These charges were included in Selling, general and administrative expenses in the Condensed Consolidated Statements of Operations. There were no charges related to this restructuring initiative for the three months ended September 30, 2017. The Company does not expect to incur additional material pre-tax restructuring-related expenses related to this initiative. Substantially all cash payments were made by the end of 2017 and substantially all of the actions associated with this restructuring were completed by the end of April 2017.

2017 U.S. Generic Pharmaceuticals Restructuring Initiative

On July 21, 2017, the Company announced that after completing a comprehensive review of its manufacturing network, the Company would be ceasing operations and closing its manufacturing and distribution facilities in Huntsville, Alabama (the 2017 U.S. Generic Pharmaceuticals Restructuring Initiative). The closure of the facilities was completed in June 2018. Employee separation, retention and certain other employee benefit-related costs are expensed ratably over the requisite service period. Other costs including, but not limited to, contract termination fees and product technology transfer costs, are expensed as incurred.

As a result of the 2017 U.S. Generic Pharmaceuticals Restructuring Initiative, the Company incurred pre-tax charges of $4.8 million and $59.6 million during the three and nine months ended September 30, 2018, respectively. During the three months ended September 30, 2018, the expenses consisted of employee separation and other benefit-related costs of $2.1 million and certain other charges of $2.7 million. During the nine months ended September 30, 2018, the expenses consisted of charges relating to accelerated depreciation of $35.2 million, employee separation, retention and other benefit-related costs of $9.8 million, asset impairment charges of $2.6 million and certain other charges of $12.0 million.

During the three and nine months ended September 30, 2017, the Company incurred pre-tax charges of $94.2 million and $203.7 million, respectively, related to the 2017 U.S. Generic Pharmaceuticals Restructuring Initiative. The amounts incurred during the three months ended September 30, 2017 included accelerated depreciation charges of $59.8 million, employee separation, retention and other benefit-related costs of $19.5 million, certain property, plant and equipment impairment charges of $14.2 million and certain other charges of $0.6 million. The amounts incurred during the nine months ended September 30, 2017 included accelerated depreciation charges of $59.8 million, employee separation, retention and other benefit-related costs of $19.5 million, certain intangible asset and property, plant and equipment impairment charges of $103.7 million, charges to increase excess inventory reserves of $7.9 million and certain other charges of $12.7 million. In the third quarter of 2017, the Company recorded a correcting entry to increase Property, plant and equipment impairment charges resulting from certain assets that should have been impaired during the second quarter of 2017. The pre-tax impact for the three months ended September 30, 2017 includes a correcting adjustment of $14.2 million, which had a corresponding decrease to Property, plant and equipment, net. The Company determined that the impact to the prior period and the current period are not material to the quarterly periods presented and have no impact on 2017 full year results.

These charges are included in the U.S. Generic Pharmaceuticals segment. Accelerated depreciation and employee separation, retention and other benefit-related costs are included in Cost of revenues. Certain other charges are included in both Cost of revenues and Selling, general and administrative expenses in the Condensed Consolidated Statements of Operations. The Company does not expect to incur additional material pre-tax restructuring-related expenses related to this initiative. Substantially all cash payments are expected to be made by the end of the third quarter in 2019.

The liability related to the 2017 U.S. Generic Pharmaceuticals Restructuring Initiative is primarily included in Accounts payable and accrued expenses in the Condensed Consolidated Balance Sheets. Changes to this liability during the nine months ended September 30, 2018 were as follows (in thousands):

	Employee Separation and Other Benefit-Related Costs	Other Restructuring Costs	Total
Liability balance as of January 1, 2018	$ 22,975	$ 1,610	$ 24,585
Expenses	9,779	9,341	19,120
Cash distributions	(22,518)	(10,951)	(33,469)
Liability balance as of September 30, 2018	$ 10,236	$ —	$ 10,236

January 2018 Restructuring Initiative

In January 2018, the Company initiated a restructuring initiative that included a reorganization of its U.S. Generic Pharmaceuticals segment’s research and development network, a further simplification of the Company’s manufacturing networks and a company-wide unification of certain corporate functions (the January 2018 Restructuring Initiative).

As a result of the January 2018 Restructuring Initiative, the Company incurred pre-tax charges of $23.8 million during the nine months ended September 30, 2018. The expenses consisted primarily of employee separation, retention and other benefit-related costs of $22.1 million and certain other charges of $1.7 million. Of the total charges incurred, $10.8 million are included in the U.S. Generic Pharmaceuticals segment, $5.2 million are included in Corporate unallocated costs, $4.0 million are included in the U.S. Branded - Sterile Injectables segment, $3.1 million are included in the International Pharmaceuticals segment and $0.7 million are included in the U.S. Branded - Specialty & Established Pharmaceuticals segment. The Company did not incur material charges related to this restructuring initiative during the three months ended September 30, 2018.

Employee separation, retention and other benefit-related costs are included in Cost of revenues, Selling, general and administrative and Research and development expenses in the Condensed Consolidated Statements of Operations. Certain other charges are primarily included in Selling, general and administrative expenses in the Condensed Consolidated Statements of Operations. The Company does not expect to incur additional material pre-tax restructuring-related expenses related to this initiative. Substantially all cash payments are expected to be made by the end of the second quarter in 2019.

The liability related to the January 2018 Restructuring Initiative is primarily included in Accounts payable and accrued expenses in the Condensed Consolidated Balance Sheets. Changes to this liability during the nine months ended September 30, 2018 were as follows (in thousands):

	Employee Separation and Other Benefit-Related Costs	Other Restructuring Costs	Total
Liability balance as of January 1, 2018	$ —	$ 650	$ 650
Expenses	22,087	1,705	23,792
Cash distributions	(18,439)	(1,949)	(20,388)
Liability balance as of September 30, 2018	$ 3,648	$ 406	$ 4,054

NOTE 5. ACQUISITIONS

On April 26, 2018, the Company entered into a Membership Interest and Asset Purchase Agreement (the Somerset Purchase Agreement) with Mendham Holdings, LLC (the Seller) and certain other Seller related parties in connection with the acquisition of all of the limited liability company membership interests (the LLC Interests) of Somerset Therapeutics, LLC (Somerset) and certain of Somerset's assets, including intellectual property, product Abbreviated New Drug Applications (ANDAs) and inventory (the Somerset Assets). Somerset is a specialty pharmaceutical company that develops and markets sterile injectable and ophthalmic drugs for the U.S. market. The Somerset acquisition is contingent upon the closing of the acquisition of the Indian-based Wintac business (as defined below).

Pursuant to the terms of the Somerset Purchase Agreement, the Company will acquire 100% of the LLC Interests of Somerset and the Somerset Assets for an aggregate cash purchase price of approximately $160 million, subject to customary adjustments for cash, net working capital and indebtedness as described in the Somerset Purchase Agreement. The Somerset Purchase Agreement contains certain customary representations, warranties and covenants and provides for indemnification rights of the parties in respect of inaccuracies or breaches of certain representations, warranties and covenants, subject to the limitations set forth in the Somerset Purchase Agreement.

The Somerset acquisition is expected to close in the first quarter of 2019, subject to satisfaction of customary closing conditions, including required regulatory approvals and the closing of the acquisition of the Wintac business. In connection with the Somerset acquisition, the Company's Indian subsidiary has entered into separate agreements to acquire the entire business of Somerset's Indian-based contract development and manufacturing affiliate, Wintac Limited (Wintac), including certain real property in Bangalore, India and the manufacturing plants thereon and to assume certain debt of Wintac for the expected aggregate amount of the rupee equivalent of approximately $30 million, subject to customary adjustments for net working capital.

NOTE 6. SEGMENT RESULTS

As of January 1, 2018, we made changes to our reportable segments. Following these changes, the four reportable business segments in which we operate are: (1) U.S. Branded - Specialty & Established Pharmaceuticals, (2) U.S. Branded - Sterile Injectables, (3) U.S. Generic Pharmaceuticals and (4) International Pharmaceuticals. Previously, we had three reportable segments: (1) U.S. Generic Pharmaceuticals, (2) U.S. Branded Pharmaceuticals and (3) International Pharmaceuticals. The updates to our reportable segments were made based on first quarter 2018 changes to the way we manage and evaluate our business.

Our new U.S. Branded - Sterile Injectables segment consists of our sterile injectables product portfolio, which was previously part of our former U.S. Generic Pharmaceuticals segment. Our new U.S. Generic Pharmaceuticals segment represents the remainder of our former U.S. Generic Pharmaceuticals segment. Additionally, our former U.S. Branded Pharmaceuticals segment has been renamed "U.S. Branded - Specialty & Established Pharmaceuticals."

Our segments reflect the level at which the chief operating decision maker regularly reviews financial information to assess performance and to make decisions about resources to be allocated. Each segment derives revenue from the sales or licensing of its respective products and is discussed in more detail below.

We evaluate segment performance based on each segment's adjusted income from continuing operations before income tax, which we define as Loss from continuing operations before income tax and before certain upfront and milestone payments to partners; acquisition-related and integration items, including transaction costs, earn-out payments or adjustments, changes in the fair value of contingent consideration and bridge financing costs; cost reduction and integration-related initiatives such as separation benefits, retention payments, other exit costs and certain costs associated with integrating an acquired company's operations; asset impairment charges; amortization of intangible assets; inventory step-up recorded as part of our acquisitions; litigation-related and other contingent matters; gains or losses from early termination of debt; gains or losses from the sales of businesses and other assets; foreign currency gains or losses on intercompany financing arrangements; and certain other items.

Certain of the corporate expenses incurred by the Company are not attributable to any specific segment. Accordingly, these costs are not allocated to any of the Company's segments and are included in the results below as "Corporate unallocated costs." Interest income and expense are also considered corporate items and not allocated to any of the Company's segments. The Company's consolidated adjusted income from continuing operations before income tax is equal to the combined results of each of its segments less these unallocated corporate items.

U.S. Branded - Specialty & Established Pharmaceuticals

Our U.S. Branded - Specialty & Established Pharmaceuticals segment includes a variety of branded prescription products to treat and manage conditions in urology, urologic oncology, endocrinology, pain and orthopedics. The products in this segment include XIAFLEX®, SUPPRELIN® LA, TESTOPEL®, NASCOBAL® Nasal Spray, AVEED®, PERCOCET®, VOLTAREN® Gel, LIDODERM®, EDEX®, TESTIM® and FORTESTA® Gel, among others.

U.S. Branded - Sterile Injectables

Our U.S. Branded - Sterile Injectables segment consists primarily of branded sterile injectable products such as VASOSTRICT®, ADRENALIN® and APLISOL®, among others, and certain generic sterile injectable products, including ertapenem for injection and ephedrine sulfate injection, among others.

U.S. Generic Pharmaceuticals

Our U.S. Generic Pharmaceuticals segment consists of a differentiated product portfolio including solid oral extended-release, solid oral immediate-release, abuse-deterrent products, liquids, semi-solids, patches, powders, ophthalmics and sprays and includes products in the pain management, urology, central nervous system disorders, immunosuppression, oncology, women's health and cardiovascular disease markets, among others.

International Pharmaceuticals

Our International Pharmaceuticals segment includes a variety of specialty pharmaceutical products sold outside the U.S., primarily in Canada through our operating company Paladin Labs Inc. (Paladin). This segment's key products serve growing therapeutic areas, including attention deficit hyperactivity disorder (ADHD), pain, women's health and oncology. This segment also included: (i) our South African Litha business, which was sold in July 2017, and (ii) our Latin American Somar business, which was sold in October 2017.

The following represents selected information for the Company's reportable segments for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Net revenues from external customers:				
U.S. Branded - Specialty & Established Pharmaceuticals	$ 220,100	$ 233,803	$ 632,972	$ 729,150
U.S. Branded - Sterile Injectables	237,150	201,905	670,847	554,365
U.S. Generic Pharmaceuticals	257,969	294,749	748,445	1,227,584
International Pharmaceuticals (1)	30,247	56,430	108,425	189,119
Total net revenues from external customers	$ 745,466	$ 786,887	$ 2,160,689	$ 2,700,218
Adjusted income from continuing operations before income tax:				
U.S. Branded - Specialty & Established Pharmaceuticals	$ 84,891	$ 123,754	$ 262,454	$ 380,841
U.S. Branded - Sterile Injectables	170,329	150,531	513,082	417,060
U.S. Generic Pharmaceuticals	82,555	86,236	247,137	415,172
International Pharmaceuticals	13,377	17,434	45,594	47,128
Total segment adjusted income from continuing operations before income tax	$ 351,152	$ 377,955	$ 1,068,267	$ 1,260,201

(1) Revenues generated by our International Pharmaceuticals segment are primarily attributable to external customers located in Canada and, prior to the sale of Litha on July 3, 2017 and Somar on October 25, 2017, South Africa and Latin America.

There were no material revenues from external customers attributed to an individual country outside of the United States during any of the periods presented. There were no material tangible long-lived assets in an individual country other than the United States as of September 30, 2018 or December 31, 2017.

The table below provides reconciliations of our consolidated Loss from continuing operations before income tax, which is determined in accordance with U.S. generally accepted accounting principles (U.S. GAAP), to our total segment adjusted income from continuing operations before income tax for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Total consolidated loss from continuing operations before income tax	$ (143,068)	$ (127,796)	$ (671,559)	$ (1,058,647)
Interest expense, net	131,847	127,521	385,896	361,267
Corporate unallocated costs (1)	49,187	33,035	144,693	114,655
Amortization of intangible assets	161,275	161,413	471,662	615,490
Inventory step-up	71	66	261	281
Upfront and milestone payments to partners	4,731	775	43,027	6,952
Separation benefits and other cost reduction initiatives (2)	4,001	80,693	82,141	127,977
Certain litigation-related and other contingencies, net (3)	(1,750)	(12,352)	15,370	(14,016)
Asset impairment charges (4)	142,217	94,924	613,400	1,023,930
Acquisition-related and integration items (5)	1,288	16,641	13,284	31,711
Loss on extinguishment of debt	—	—	—	51,734
Foreign currency impact related to the remeasurement of intercompany debt instruments	1,528	3,005	(1,560)	(2,922)
Other, net (6)	(175)	30	(28,348)	1,789
Total segment adjusted income from continuing operations before income tax	$ 351,152	$ 377,955	$ 1,068,267	$ 1,260,201

(1) Amounts include certain corporate overhead costs, such as headcount and facility expenses and certain other income and expenses.

(2) Amounts for the three and nine months ended September 30, 2018 relate to employee separation costs of $2.1 million and $32.7 million, respectively, charges to increase excess inventory reserves of $0.2 million and $2.8 million, respectively, and other charges of $1.7 million and $11.4 million, respectively, each of which related primarily to our restructuring initiatives. Also included in the amount for the nine months ended September 30, 2018 is accelerated depreciation of $35.2 million, which related to the 2017 U.S. Generic Pharmaceuticals Restructuring Initiative. During the three and nine months ended September 30, 2017, amounts primarily relate to employee separation costs of $19.8 million and $41.3 million, accelerated depreciation of $59.8 million and $60.2 million, other charges of $1.1 million and $18.5 million, respectively, and charges to increase excess inventory reserves of $7.9 million during the nine months ended September 30, 2017. These charges were related primarily to the 2017 U.S. Generics Pharmaceuticals restructuring initiative. See Note 4. Restructuring for discussion of our material restructuring initiatives.

(3) Amounts include adjustments for Litigation-related and other contingencies, net as further described in Note 14. Commitments and Contingencies.

(4) Amounts primarily relate to charges to impair goodwill and intangible assets as further described in Note 9. Goodwill and Other Intangibles as well as charges to write down certain property, plant and equipment as further described in Note 7. Fair Value Measurements.

(5) Amounts during the three and nine months ended September 30, 2018 are primarily related to charges due to changes in the fair value of contingent consideration of $0.8 million and $11.7 million, respectively. Amounts during the three and nine months ended September 30, 2017 include charges due to changes in the fair value of contingent consideration of $15.4 million and $23.6 million, respectively. All other amounts are directly related to costs associated with acquisition and integration efforts.

(6) Amounts during the three and nine months ended September 30, 2018 primarily relate to gains on sales of businesses and other assets, as further described in Note 17. Other income, net.

Asset information is not reviewed or included within our internal management reporting. Therefore, the Company has not disclosed asset information for each reportable segment.

The Company disaggregates its revenue from contracts with customers into the categories included in the table below (in thousands). The Company believes these categories depict how the nature, timing and uncertainty of revenue and cash flows are affected by economic factors.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
U.S. Branded - Specialty & Established Pharmaceuticals:				
Specialty Products:				
XIAFLEX®	$ 64,214	$ 52,511	$ 184,855	$ 152,113
SUPPRELIN® LA	20,408	20,638	60,948	63,468
Other Specialty (1)	43,576	40,634	114,202	113,407
Total Specialty Products	$ 128,198	$ 113,783	$ 360,005	$ 328,988
Established Products:				
PERCOCET®	$ 30,730	$ 31,349	$ 93,539	$ 93,183
VOLTAREN® Gel	15,057	19,102	44,185	53,646
OPANA® ER	—	14,756	—	82,056
Other Established (2)	46,115	54,813	135,243	171,277
Total Established Products	$ 91,902	$ 120,020	$ 272,967	$ 400,162
Total U.S. Branded - Specialty & Established Pharmaceuticals (3)	$ 220,100	$ 233,803	$ 632,972	$ 729,150
U.S. Branded - Sterile Injectables:				
VASOSTRICT®	$ 112,333	$ 105,741	$ 332,387	$ 300,649
ADRENALIN®	35,460	25,335	101,858	50,464
Ertapenem for injection	25,798	—	25,798	—
Other Sterile Injectables (4)	63,559	70,829	210,804	203,252
Total U.S. Branded - Sterile Injectables (3)	$ 237,150	$ 201,905	$ 670,847	$ 554,365
Total U.S. Generic Pharmaceuticals (5)	$ 257,969	$ 294,749	$ 748,445	$ 1,227,584
Total International Pharmaceuticals (6)	$ 30,247	$ 56,430	$ 108,425	$ 189,119
Total Revenues	$ 745,466	$ 786,887	$ 2,160,689	$ 2,700,218

(1) Products included within Other Specialty include TESTOPEL®, NASCOBAL® Nasal Spray and AVEED®.

(2) Products included within Other Established include, but are not limited to, LIDODERM®, EDEX®, TESTIM® and FORTESTA® Gel, including the authorized generics.

(3) Individual products presented above represent the top two performing products in each product category and/or any product having revenues in excess of $25 million during any quarterly period in 2018 or 2017.

(4) Products included within Other Sterile Injectables include, but are not limited to, APLISOL® and ephedrine sulfate injection.

(5) The U.S. Generic Pharmaceuticals segment is comprised of a portfolio of products that are generic versions of branded products, are distributed primarily through the same wholesalers, generally have no intellectual property protection and are sold within the U.S. During the nine months ended September 30, 2017, combined sales of ezetimibe tablets and quetiapine ER tablets, for which we lost temporary marketing exclusivity during the second quarter of 2017, made up 9% of consolidated total revenue. No other individual product within this segment has exceeded 5% of consolidated total revenues for the periods presented.

(6) The International Pharmaceuticals segment, which accounted for 4% and 5% of consolidated total revenues during the three and nine months ended September 30, 2018, respectively, and 7% of consolidated total revenues during both the three and nine months ended September 30, 2017, includes a variety of specialty pharmaceutical products sold outside the U.S., primarily in Canada through our operating company Paladin Labs, Inc. (Paladin). This segment also included: (i) our South African business, which was sold in July 2017 and consisted of Litha and certain assets acquired from Aspen Holdings in October 2015 and (ii) our Latin American business consisting of Somar, which was sold in October 2017.

NOTE 7. FAIR VALUE MEASUREMENTS

Financial Instruments

The financial instruments recorded in our Condensed Consolidated Balance Sheets include cash and cash equivalents (including money market funds and time deposits), restricted cash and cash equivalents, accounts receivable, marketable securities, equity and cost method investments, accounts payable and accrued expenses, acquisition-related contingent consideration and debt obligations. Included in cash and cash equivalents and restricted cash and cash equivalents are money market funds representing a type of mutual fund required by law to invest in low-risk securities (for example, U.S. government bonds, U.S. Treasury Bills and commercial paper). Money market funds pay dividends that generally reflect short-term interest rates. Due to their short-term maturity, the carrying amounts of non-restricted and restricted cash and cash equivalents (including money market funds and time deposits), accounts receivable, accounts payable and accrued expenses approximate their fair values.

At September 30, 2018 and December 31, 2017, the Company had combined restricted cash and cash equivalents of $312.0 million and $324.4 million, respectively, of which $289.7 million and $320.5 million, respectively, are classified as current assets and reported in our Condensed Consolidated Balance Sheets as Restricted cash and cash equivalents. The remaining amounts, which are classified as non-current assets, are reported in our Condensed Consolidated Balance Sheets as Other assets. Approximately $283.8 million and $313.8 million of our restricted cash and cash equivalents are held in qualified settlement funds (QSFs) for mesh-related matters at September 30, 2018 and December 31, 2017, respectively. The remaining amount of restricted cash and cash equivalents at September 30, 2018 primarily relates to other litigation-related matters. See Note 14. Commitments and Contingencies for further information.

Fair value guidance establishes a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value. These tiers include:

- Level 1—Quoted prices in active markets for identical assets or liabilities.
- Level 2—Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

Marketable Securities

Equity securities consist of investments in the stock of publicly traded companies, the values of which are based on quoted market prices and thus represent Level 1 measurements within the above-defined fair value hierarchy. These securities are not held to support current operations and are therefore classified as non-current assets. Equity securities are included in Marketable securities in our Condensed Consolidated Balance Sheets at September 30, 2018 and December 31, 2017.

Acquisition-Related Contingent Consideration

The fair value of contingent consideration liabilities is determined using unobservable inputs; hence these instruments represent Level 3 measurements within the above-defined fair value hierarchy. These inputs include the estimated amount and timing of projected cash flows, the probability of success (achievement of the contingent event) and the risk-adjusted discount rate used to present value the probability-weighted cash flows. Subsequent to the acquisition date, at each reporting period, the contingent consideration liability is remeasured at current fair value with changes recorded in earnings. Changes in any of these estimated inputs used as of the date of this report could have resulted in significant adjustments to fair value. See Recurring Fair Value Measurements below for additional information on acquisition-related contingent consideration.

Recurring Fair Value Measurements

The Company's financial assets and liabilities measured at fair value on a recurring basis at September 30, 2018 and December 31, 2017 were as follows (in thousands):

	Fair Value Measurements at Reporting Date using:			
September 30, 2018	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**	**Total**
Assets:				
Money market funds	$ 691,579	$ —	$ —	$ 691,579
Equity securities	1,693	—	—	1,693
Total	$ 693,272	$ —	$ —	$ 693,272
Liabilities:				
Acquisition-related contingent consideration—short-term	$ —	$ —	$ 42,261	$ 42,261
Acquisition-related contingent consideration—long-term	—	—	86,209	86,209
Total	$ —	$ —	$ 128,470	$ 128,470

	Fair Value Measurements at Reporting Date using:			
December 31, 2017	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**	**Total**
Assets:				
Money market funds	$ 439,831	$ —	$ —	$ 439,831
Time deposits	—	303,410	—	303,410
Equity securities	1,456	—	—	1,456
Total	$ 441,287	$ 303,410	$ —	$ 744,697
Liabilities:				
Acquisition-related contingent consideration—short-term	$ —	$ —	$ 70,543	$ 70,543
Acquisition-related contingent consideration—long-term	—	—	119,899	119,899
Total	$ —	$ —	$ 190,442	$ 190,442

At September 30, 2018 and December 31, 2017, money market funds include $57.0 million and $35.6 million, respectively, in QSFs to be disbursed to mesh-related or other product liability claimants. Amounts in QSFs are considered restricted cash equivalents. See Note 14. Commitments and Contingencies for further discussion of our product liability cases. The differences between the amortized cost and fair value of our money market funds and equity securities were not material, individually or in the aggregate, at September 30, 2018 or December 31, 2017, nor were any of the related gross unrealized gains or losses.

Fair Value Measurements Using Significant Unobservable Inputs

The following table presents changes to the Company's liability for acquisition-related contingent consideration, which was measured at fair value on a recurring basis using significant unobservable inputs (Level 3) for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	**2017**	**2018**	**2017**
Beginning of period	$ 152,098	$ 210,460	$ 190,442	$ 262,113
Amounts settled	(24,564)	(31,617)	(73,298)	(91,927)
Changes in fair value recorded in earnings	769	15,440	11,731	23,574
Effect of currency translation	167	504	(405)	1,027
End of period	$ 128,470	$ 194,787	$ 128,470	$ 194,787

At September 30, 2018, the fair value measurements of the contingent consideration obligations were determined using risk-adjusted discount rates ranging from approximately 10% to 22% (weighted average rate of approximately 14.1%). Changes in fair value recorded in earnings related to acquisition-related contingent consideration are included in our Condensed Consolidated Statements of Operations as Acquisition-related and integration items, and amounts recorded for the short-term and long-term portions of acquisition-related contingent consideration are included in Accounts payable and accrued expenses and Other liabilities, respectively, in our Condensed Consolidated Balance Sheets.

The following table presents changes to the Company's liability for acquisition-related contingent consideration during the nine months ended September 30, 2018 by acquisition (in thousands):

	Balance as of December 31, 2017	Fair Value Adjustments and Accretion	Payments and Other	Balance as of September 30, 2018
Auxilium acquisition	$ 13,061	$ (263)	$ (1,844)	$ 10,954
Lehigh Valley Technologies, Inc. acquisitions	63,001	11,169	(39,469)	34,701
VOLTAREN® Gel acquisition	98,124	3,839	(30,923)	71,040
Other	16,256	(3,014)	(1,467)	11,775
Total	$ 190,442	$ 11,731	$ (73,703)	$ 128,470

Nonrecurring Fair Value Measurements

The Company's financial assets and liabilities measured at fair value on a nonrecurring basis during the nine months ended September 30, 2018 were as follows (in thousands):

	Fair Value Measurements at Reporting Date using:			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Expense for the Nine Months Ended September 30, 2018
Assets:				
Intangible assets, excluding goodwill (Note 9)	$ —	$ —	$ 239,857	$ (217,576)
Certain property, plant and equipment (1)	—	—	—	(4,824)
Total	$ —	$ —	$ 239,857	$ (222,400)

(1) Amount includes $2.6 million related to the 2017 U.S. Generic Pharmaceuticals Restructuring Initiative, which is described further in Note 4. Restructuring.

Additionally, the Company recorded aggregate goodwill impairment charges during the nine months ended September 30, 2018 of $391.0 million. Refer to Note 9. Goodwill and Other Intangibles for further description, including the valuation methodologies utilized.

NOTE 8. INVENTORIES

Inventories consist of the following at September 30, 2018 and December 31, 2017 (in thousands):

	September 30, 2018	December 31, 2017
Raw materials (1)	$ 119,627	$ 124,685
Work-in-process (1)	83,665	109,897
Finished goods (1)	129,495	156,855
Total	$ 332,787	$ 391,437

(1) The components of inventory shown in the table above are net of allowance for obsolescence.

Inventory that is in excess of the amount expected to be sold within one year, which relates primarily to XIAFLEX® inventory, is classified as long-term inventory and is not included in the table above. At September 30, 2018 and December 31, 2017, $13.3 million and $17.1 million, respectively, of long-term inventory was included in Other assets in the Condensed Consolidated Balance Sheets. As of September 30, 2018 and December 31, 2017, the Company's Condensed Consolidated Balance Sheets included approximately $13.6 million and $5.9 million, respectively, of capitalized pre-launch inventories related to generic products that were not yet available to be sold.

NOTE 9. GOODWILL AND OTHER INTANGIBLES

Goodwill

Changes in the carrying amount of our goodwill for the nine months ended September 30, 2018 were as follows (in thousands):

	U.S. Branded - Specialty & Established Pharmaceuticals	U.S. Branded - Sterile Injectables	U.S. Generic Pharmaceuticals	International Pharmaceuticals	Total
Goodwill as of December 31, 2017	$ 828,818	$ —	$ 3,531,301	$ 89,963	$ 4,450,082
Allocation to current segments (1)	—	2,731,193	(2,731,193)	—	—
Effect of currency translation	—	—	—	(2,414)	(2,414)
Goodwill impairment charges	—	—	(391,000)	—	(391,000)
Goodwill as of September 30, 2018	$ 828,818	$ 2,731,193	$ 409,108	$ 87,549	$ 4,056,668

(1) This allocation relates to the change in segments described in Note 6. Segment Results. The amount of goodwill initially attributed to the new U.S. Branded - Sterile Injectables and U.S. Generic Pharmaceuticals segments was determined using a relative fair value methodology in accordance with U.S. GAAP.

The carrying amounts of goodwill at September 30, 2018 and December 31, 2017 are net of the following accumulated impairments (in thousands):

	U.S. Branded - Specialty & Established Pharmaceuticals	U.S. Branded - Sterile Injectables	U.S. Generic Pharmaceuticals	International Pharmaceuticals	Total
Accumulated impairment losses as of December 31, 2017	$ 855,810	$ —	$ 2,342,549	$ 463,545	$ 3,661,904
Accumulated impairment losses as of September 30, 2018	$ 855,810	$ —	$ 2,733,549	$ 451,209	$ 4,040,568

Other Intangible Assets

Changes in the amount of other intangible assets for the nine months ended September 30, 2018 are set forth in the table below (in thousands).

Cost basis:	**Balance as of December 31, 2017**	**Acquisitions**	**Impairments**	**Other (1)**	**Effect of Currency Translation**	**Balance as of September 30, 2018**
Indefinite-lived intangibles:						
In-process research and development	$ 347,200	$ —	$ (87,900)	$ (165,400)	$ —	$ 93,900
Total indefinite-lived intangibles	$ 347,200	$ —	$ (87,900)	$ (165,400)	$ —	$ 93,900
Finite-lived intangibles:						
Licenses (weighted average life of 12 years)	$ 457,402	$ —	$ —	$ —	$ —	$ 457,402
Tradenames	6,409	—	—	—	—	6,409
Developed technology (weighted average life of 11 years)	6,187,764	—	(129,676)	154,753	(7,447)	6,205,394
Total finite-lived intangibles (weighted average life of 11 years)	$ 6,651,575	$ —	$ (129,676)	$ 154,753	$ (7,447)	$ 6,669,205
Total other intangibles	$ 6,998,775	$ —	$ (217,576)	$ (10,647)	$ (7,447)	$ 6,763,105

Accumulated amortization:	**Balance as of December 31, 2017**	**Amortization**	**Impairments**	**Other (1)**	**Effect of Currency Translation**	**Balance as of September 30, 2018**
Finite-lived intangibles:						
Licenses	$ (370,221)	$ (21,262)	$ —	$ —	$ —	$ (391,483)
Tradenames	(6,409)	—	—	—	—	(6,409)
Developed technology	(2,304,461)	(450,400)	—	10,647	3,217	(2,740,997)
Total other intangibles	$ (2,681,091)	$ (471,662)	$ —	$ 10,647	$ 3,217	$ (3,138,889)
Net other intangibles	$ 4,317,684					$ 3,624,216

(1) Other adjustments relate to reclassification adjustments of $165.4 million for certain developed technology intangible assets, previously classified as in-process research and development, that were placed in service during the nine months ended September 30, 2018 and the removal of certain fully amortized intangible assets.

Amortization expense for the three and nine months ended September 30, 2018 totaled $161.3 million and $471.7 million, respectively. Amortization expense for the three and nine months ended September 30, 2017 totaled $161.4 million and $615.5 million, respectively. Amortization expense is included in Cost of revenues in the Condensed Consolidated Statements of Operations. Estimated amortization of intangibles for the five fiscal years subsequent to December 31, 2017 is as follows (in thousands):

2018	$ 622,384
2019	$ 552,516
2020	$ 481,300
2021	$ 447,157
2022	$ 420,786

Impairments

Endo tests goodwill and indefinite-lived intangible assets for impairment annually, or more frequently whenever events or changes in circumstances indicate that the asset might be impaired. Our annual assessment is performed as of October 1st.

As part of our goodwill and intangible asset impairment assessments, we estimate the fair values of our reporting units and our intangible assets using an income approach that utilizes a discounted cash flow model or, where appropriate, a market approach. The discounted cash flow models are dependent upon our estimates of future cash flows and other factors. These estimates of future cash flows involve assumptions concerning (i) future operating performance, including future sales, long-term growth rates, operating margins, tax rates, variations in the amount and timing of cash flows and the probability of achieving the estimated cash flows and (ii) future economic conditions. These assumptions are based on significant inputs not observable in the market and thus represent Level 3 measurements within the fair value hierarchy. The discount rates applied to the estimated cash flows are based on the overall risk associated with the particular assets and other market factors. We believe the discount rates and other inputs and assumptions are consistent with those that a market participant would use. Any impairment charges resulting from annual or interim goodwill and intangible asset impairment assessments are recorded to Asset impairment charges in our Condensed Consolidated Statements of Operations.

During the three and nine months ended September 30, 2018 and 2017, the Company incurred the following goodwill and other intangible asset impairment charges:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Goodwill impairment charges	$ —	$ —	$ 391,000	$ 288,745
Other intangible asset impairment charges	$ 140,609	$ 78,300	$ 217,576	$ 674,177

A summary of significant goodwill and other intangible asset impairment tests and related charges is included below. Other intangible asset impairment charges that are not included in the below narrative totaled $140.6 million and $78.3 million during the three months ended September 30, 2018 and 2017, respectively, and $217.6 million and $461.1 million during the nine months ended September 30, 2018 and 2017, respectively. These charges relate primarily to certain in-process research and development and/or developed technology intangible assets that were tested for impairment following changes in market conditions and certain other factors impacting recoverability.

Our first quarter 2018 change in segments described in Note 6. Segment Results resulted in changes to our reporting units for goodwill impairment testing purposes, including the creation of a new U.S. Branded - Sterile Injectables reporting unit, which was previously part of our Generics reporting unit. As a result of these changes, under U.S. GAAP, we tested the goodwill of the former Generics reporting unit immediately before the segment realignment and the goodwill of both the new U.S. Branded - Sterile Injectables and U.S. Generic Pharmaceuticals reporting units immediately after the segment realignment. These goodwill tests were performed using an income approach that utilizes a discounted cash flow model. The results of these goodwill impairment tests were as follows:

- The former Generics reporting unit's estimated fair value (determined using a discount rate of 9.5%) exceeded its carrying amount, resulting in no related goodwill impairment charge.
- The new U.S. Branded - Sterile Injectables reporting unit's estimated fair value (determined using a discount rate of 9.5%) exceeded its carrying amount, resulting in no related goodwill impairment charge.
- The new U.S. Generic Pharmaceuticals reporting unit's carrying amount exceeded its estimated fair value (determined using a discount rate of 9.5%), resulting in a pre-tax non-cash goodwill impairment charge of $391.0 million.

In March 2017, we announced that the Food and Drug Administration's (FDA) Drug Safety and Risk Management and Anesthetic and Analgesic Drug Products Advisory Committees voted that the benefits of reformulated OPANA® ER (oxymorphone hydrochloride extended release) no longer outweigh its risks. In June 2017, we became aware of the FDA's request that we voluntarily withdraw OPANA® ER from the market, and in July 2017, after careful consideration and consultation with the FDA, we decided to voluntarily remove OPANA® ER from the market. As a result of our decision, the Company determined that the carrying amount of its OPANA® ER intangible asset was no longer recoverable, resulting in a pre-tax, non-cash impairment charge of $20.6 million in the second quarter of 2017, representing the remaining carrying amount.

As a result of the withdrawal of OPANA® ER from the market and the continued erosion of our U.S. Branded Pharmaceuticals segment's Established Products portfolio, we initiated an interim goodwill impairment analysis of our Branded reporting unit during the second quarter of 2017. We recorded a pre-tax, non-cash goodwill impairment charge of $180.4 million during the three months ended June 30, 2017 for the amount by which the carrying amount exceeded the reporting unit's fair value. We estimated the fair value of the Branded reporting unit using an income approach that utilized a discounted cash flow model. The discount rate applied to the estimated cash flows for our Branded goodwill impairment test was 9.5%.

As further described in Note 4. Restructuring, the Company announced the 2017 U.S. Generic Pharmaceuticals Restructuring Initiative in July 2017, which includes the discontinuation of certain commercial products. As a result, the Company assessed the recoverability of the impacted products, resulting in pre-tax, non-cash intangible asset impairment charges of approximately $57.5 million during the second quarter of 2017. The Company also initiated an interim goodwill impairment analysis of its Generics reporting unit during the second quarter of 2017 as a result of the 2017 U.S. Generic Pharmaceuticals Restructuring Initiative and determined that the estimated fair value of the Generics reporting unit exceeded its carrying amount. Accordingly, no related goodwill impairment was recorded. The Company estimated the fair value of the Generics reporting unit using an income approach that utilized a discounted cash flow model. The discount rate applied to the estimated cash flows for our Generics goodwill impairment test was 9.0%.

Pursuant to an existing agreement with a wholly owned subsidiary of Novartis AG (Novartis), Paladin licensed the Canadian rights to commercialize serelaxin, an investigational drug for the treatment of acute heart failure (AHF). In March 2017, Novartis announced that a Phase 3 study of serelaxin in patients with AHF failed to meet its primary endpoints. As a result, we concluded that the full carrying amount of our serelaxin in-process research and development intangible asset was impaired, resulting in a $45.5 million pre-tax non-cash impairment charge for the three months ended March 31, 2017. In addition and as a result of the serelaxin impairment, we assessed the recoverability of our Paladin goodwill balance and determined that the estimated fair value of the Paladin reporting unit was below its carrying amount. We recorded a pre-tax, non-cash goodwill impairment charge of $82.6 million during the three months ended March 31, 2017 for the amount by which the carrying amount exceeded the reporting unit’s fair value. We estimated the fair value of the Paladin reporting unit using an income approach that utilized a discounted cash flow model. The discount rate applied to the estimated cash flows for our Paladin goodwill impairment test was 10.0%.

As further discussed in Note 3. Discontinued Operations and Divestitures, we entered into a definitive agreement to sell Somar on June 30, 2017, which resulted in Somar’s assets and liabilities being classified as held for sale. The initiation of held-for-sale accounting, together with the agreed upon sale price, triggered an impairment review. Accordingly, we performed an impairment analysis using a market approach and determined that impairment charges were required. We recorded pre-tax, non-cash impairment charges of $25.7 million and $89.5 million related to Somar’s goodwill and other intangible assets, respectively, during the second quarter of 2017, each of which represented the remaining carrying amounts of the corresponding assets.

NOTE 10. LICENSE AND COLLABORATION AGREEMENTS

Our subsidiaries have entered into certain license, collaboration and discovery agreements with third parties for product development. These agreements require our subsidiaries to share in the development costs of such products and the third parties grant marketing rights to our subsidiaries for such products.

Generally, under these agreements: (i) we are required to make upfront payments and other payments upon successful completion of regulatory or sales milestones, (ii) we are required to pay royalties on sales of the products arising from these agreements and (iii) termination is permitted with no significant continuing obligation.

During the second quarter of 2018, we entered into a development, license and commercialization agreement with a third party pharmaceutical company related to five sterile injectable product candidates. Pursuant to this agreement, the third party will generally be responsible, at its expense, to develop and seek regulatory approval for these product candidates, and the Company will generally be responsible, at its expense, to launch and distribute any products that are approved. The Company will have exclusive license rights to all of these products launched in the U.S. and a first right of refusal for the Canadian territory. Upon entering into this agreement, the Company became obligated to make an upfront payment, which was recorded as Research and development expense in the Condensed Consolidated Statements of Operations during the three months ended June 30, 2018. The Company could become obligated to make additional payments based on certain potential future milestones being achieved.

There have been no other significant changes to our license, collaboration and discovery agreements since our Annual Report on Form 10-K for the year ended December 31, 2017.

NOTE 11. CONTRACT ASSETS AND LIABILITIES

Our revenue consists almost entirely of sales of our pharmaceutical products to customers, whereby we ship products to a customer pursuant to a purchase order. Revenue contracts such as these do not generally give rise to contract assets or contract liabilities because: (i) the underlying contracts generally have only a single performance obligation and (ii) we do not generally receive consideration until the performance obligation is fully satisfied. At September 30, 2018, the unfulfilled performance obligations for these types of contracts relate to ordered but undelivered products. We generally expect to fulfill the performance obligations and recognize revenue within one week of entering into the underlying contract. Based on the short-term initial contract duration, additional disclosure about the remaining performance obligations is not required.

Certain of our other revenue-generating contracts, including license and collaboration agreements, may result in contract assets and/or contract liabilities. For example, we may recognize contract liabilities upon receipt of certain upfront and milestone payments from customers when there are remaining performance obligations.

The following table shows the opening and closing balances of contract assets and contract liabilities from contracts with customers (dollars in thousands):

	September 30, 2018	January 1, 2018	$ Change	% Change
Contract assets, net (1)	$ 13,291	$ 11,287	$ 2,004	18 %
Contract liabilities, net (2)	$ 19,635	$ 20,954	$ (1,319)	(6)%

(1) At September 30, 2018 and January 1, 2018, approximately $10.3 million and $8.2 million, respectively, of these contract asset amounts are classified as current assets and are included in Prepaid expenses and other current assets in the Company's Condensed Consolidated Balance Sheets. The remaining amounts are classified as non-current and are included in Other assets. The net increase in contract assets during the nine months ended September 30, 2018 was primarily due to certain sales activity during the period, partially offset by reclassifications to accounts receivable following the resolution of certain conditions other than the passage of time affecting the Company's rights to consideration for the sale of certain goods.

(2) At September 30, 2018 and January 1, 2018, approximately $1.7 million and $1.9 million, respectively, of these contract liability amounts are classified as current liabilities and are included in Accounts payable and accrued expenses in the Company's Condensed Consolidated Balance Sheets. The remaining amounts are classified as non-current and are included in Other liabilities. During the nine months ended September 30, 2018, the Company recognized revenue of $1.3 million that was included in the contract liability balance at January 1, 2018, resulting in a corresponding decrease in contract liabilities.

During the nine months ended September 30, 2018, we recognized revenue of $4.6 million relating to performance obligations satisfied, or partially satisfied, in prior periods. Such revenue generally relates to changes in estimates with respect to our variable consideration.

NOTE 12. ACCOUNTS PAYABLE AND ACCRUED EXPENSES

Accounts payable and accrued expenses include the following at September 30, 2018 and December 31, 2017 (in thousands):

	September 30, 2018	December 31, 2017
Trade accounts payable	$ 106,321	$ 85,348
Returns and allowances	250,637	291,034
Rebates	152,297	168,333
Chargebacks	2,022	14,604
Accrued interest	64,647	130,257
Accrued payroll and related benefits	84,240	113,908
Accrued royalties and other distribution partner payables	103,673	63,114
Acquisition-related contingent consideration—short-term	42,261	70,543
Other	212,906	159,684
Total	$ 1,019,004	$ 1,096,825

NOTE 13. DEBT

The following table presents information about the Company's total indebtedness at September 30, 2018 and December 31, 2017 (in thousands):

	September 30, 2018			December 31, 2017		
	Effective Interest Rate	Principal Amount	Carrying Amount	Effective Interest Rate	Principal Amount	Carrying Amount
7.25% Senior Notes due 2022	7.91%	$ 400,000	$ 392,439	7.91%	$ 400,000	$ 390,974
5.75% Senior Notes due 2022	6.04%	700,000	694,053	6.04%	700,000	692,855
5.375% Senior Notes due 2023	5.62%	750,000	743,083	5.62%	750,000	742,048
6.00% Senior Notes due 2023	6.28%	1,635,000	1,615,955	6.28%	1,635,000	1,613,446
5.875% Senior Secured Notes due 2024	6.14%	300,000	295,922	6.14%	300,000	295,513
6.00% Senior Notes due 2025	6.27%	1,200,000	1,182,859	6.27%	1,200,000	1,181,243
Term Loan B Facility Due 2024	5.46%	3,372,313	3,338,451	5.46%	3,397,925	3,360,103
Other debt		—	—	1.50%	55	55
Total long-term debt, net		$ 8,357,313	$ 8,262,762		$ 8,382,980	$ 8,276,237
Less current portion, net		34,150	34,150		34,205	34,205
Total long-term debt, less current portion, net		$ 8,323,163	$ 8,228,612		$ 8,348,775	$ 8,242,032

The senior unsecured notes are unsecured and effectively subordinated in right of priority to our credit agreement (the 2017 Credit Agreement) and our senior secured notes, in each case to the extent of the value of the collateral securing such instruments, which collateral represents substantially all of the assets of the issuers or borrowers and the guarantors party thereto.

The aggregate estimated fair value of the Company's long-term debt, which was estimated using inputs based on quoted market prices for the same or similar debt issuances, was $7.9 billion and $7.5 billion at September 30, 2018 and December 31, 2017, respectively. Based on this valuation methodology, we determined these debt instruments represent Level 2 measurements within the fair value hierarchy.

Credit Facility

We have $997.2 million of remaining credit available through our revolving credit facility as of September 30, 2018. As of September 30, 2018, we were in compliance with all covenants contained in our credit agreement.

NOTE 14. COMMITMENTS AND CONTINGENCIES

Legal Proceedings and Investigations

We and certain of our subsidiaries are involved in various claims, legal proceedings and internal and governmental investigations (collectively, proceedings) that arise from time to time in the ordinary course of our business, including, among others, those relating to product liability, intellectual property, regulatory compliance, consumer protection and commercial matters. While we cannot predict the outcome of these proceedings and we intend to vigorously prosecute or defend our position as appropriate, there can be no assurance that we will be successful or obtain any requested relief, and an adverse outcome in any of these proceedings could have a material adverse effect on our current and future financial position, results of operations and cash flows. Matters that are not being disclosed herein are, in the opinion of our management, immaterial both individually and in the aggregate with respect to our financial position, results of operations and cash flows. If and when such matters, in the opinion of our management, become material, either individually or in the aggregate, we will disclose such matters.

We believe that certain settlements and judgments, as well as legal defense costs, relating to certain product liability or other matters are or may be covered in whole or in part under our insurance policies with a number of insurance carriers. In certain circumstances, insurance carriers reserve their rights to contest or deny coverage. We intend to contest vigorously any and all such disputes with our insurance carriers and to enforce our rights under the terms of our insurance policies. Accordingly, we will record receivables with respect to amounts due under these policies only when the resolution of any dispute has been reached and realization of the potential claim for recovery is considered probable. Amounts recovered under our insurance policies could be less than the stated coverage limits and may not be adequate to cover damages and/or costs relating to claims. In addition, there is no guarantee that insurers will pay claims or that coverage will otherwise be available.

As of September 30, 2018, our accrual for loss contingencies totaled $1,002.1 million, of which $845.6 million relates to our liability accrual for vaginal mesh cases and other mesh-related matters. During the fourth quarter of 2017, the Company recorded a total increase to its liability accrual of approximately $200 million related to testosterone-related product liability matters and LIDODERM®-related antitrust matters. The accrual for LIDODERM®-related matters includes an estimated loss for, among other matters, settlement of all remaining claims filed against EPI in multidistrict litigation (MDL) No. 2521, which is further discussed below under the heading "Other Antitrust Matters." The testosterone-related accrual includes an estimated loss for, among other matters, all testosterone-related product liability cases filed in MDL No. 2545 and in other courts. These cases are further discussed below under the heading "Product Liability and Related Matters." Although we believe there is a reasonable possibility that a loss in excess of the amount recognized exists, we are unable to estimate the possible loss or range of loss in excess of the amount recognized at this time.

Product Liability and Related Matters

We and certain of our subsidiaries have been named as defendants in numerous lawsuits in various U.S. federal and state courts, as well as in Canada and other countries, alleging personal injury resulting from the use of certain products of our subsidiaries. These and other related matters are described below in more detail.

Vaginal Mesh. Since 2008, we and certain of our subsidiaries, including American Medical Systems Holdings, Inc. (subsequently converted to Astora Women's Health Holding LLC and merged into Astora Women's Health LLC and referred to herein as AMS) and/or Astora, have been named as defendants in multiple lawsuits in various state and federal courts in the U.S. (including a federal MDL pending in the U.S. District Court for the Southern District of West Virginia (MDL No. 2325)), and in Canada and other countries, alleging personal injury resulting from the use of transvaginal surgical mesh products designed to treat pelvic organ prolapse (POP) and stress urinary incontinence (SUI). In January 2018, a representative proceeding (class action) was filed in the Federal Court of Australia against American Medical Systems, LLC. In the various class action and individual complaints, plaintiffs claim a variety of personal injuries, including chronic pain, incontinence, inability to control bowel function and permanent deformities, and seek compensatory and punitive damages, where available.

We and certain plaintiffs' counsel representing mesh-related product liability claimants have entered into various Master Settlement Agreements (MSAs) and other agreements to resolve up to approximately 71,000 filed and unfiled mesh claims handled or controlled by the participating counsel. These MSAs and other agreements were entered into at various times between June 2013 and the present, were solely by way of compromise and settlement and were not in any way an admission of liability or fault by us or any of our subsidiaries.

All MSAs are subject to a process that includes guidelines and procedures for administering the settlements and the release of funds. In certain cases, the MSAs provide for the creation of QSFs into which funds may be deposited pursuant to certain schedules set forth in those agreements. All MSAs have participation requirements regarding the claims represented by each law firm party to the MSA. In addition, one agreement gives us a unilateral right of approval regarding which claims may be eligible to participate under that settlement. To the extent fewer claims than are authorized under an agreement participate, the total settlement payment under that agreement will be reduced by an agreed-upon amount for each such non-participating claim. Funds deposited in QSFs are considered restricted cash and/or restricted cash equivalents.

Distribution of funds to any individual claimant is conditioned upon the receipt of documentation substantiating the validity of the claim, a full release and dismissal of the entire action or claim as to all AMS parties and affiliates. Prior to receiving funds, an individual claimant is required to represent and warrant that liens, assignment rights or other claims identified in the claims administration process have been or will be satisfied by the individual claimant. Confidentiality provisions apply to the amount of settlement awards to participating claimants, the claims evaluation process and procedures used in conjunction with award distributions, and the negotiations leading to the settlements.

In June 2017, the MDL court entered a case management order which, among other things, requires plaintiffs in newly-filed MDL cases to provide expert disclosures on specific causation within one hundred twenty (120) days of filing a claim (the Order). Under the Order, a plaintiff's failure to meet the foregoing deadline may be grounds for the entry of judgment against such plaintiff. In July 2017, a similar order was entered in Minnesota state court. In June 2018, at the request of the MDL court, the Judicial Panel on Multidistrict Litigation entered a minute order suspending the transfer of cases into the MDL. Subsequently, the MDL court issued a pretrial order discontinuing the direct filing of claims in MDL No. 2325. The MDL court also issued similar orders in other MDLs involving claims against other mesh manufacturers.

Although the Company believes it has appropriately estimated the probable total amount of loss associated with all matters as of the date of this report, fact and expert discovery is ongoing in certain cases that have not settled, and it is reasonably possible that further claims may be filed or asserted and that adjustments to our liability accrual may be required. This could have a material adverse effect on our business, financial condition, results of operations and cash flows.

The following table presents the changes in the QSFs and mesh liability accrual balance during the nine months ended September 30, 2018 (in thousands):

	Qualified Settlement Funds	Mesh Liability Accrual
Balance as of January 1, 2018	$ 313,814	$ 1,087,172
Additional charges	—	19,000
Cash contributions to Qualified Settlement Funds	216,770	—
Cash distributions to settle disputes from Qualified Settlement Funds	(248,485)	(248,485)
Cash distributions to settle disputes	—	(17,114)
Other (1)	1,653	5,038
Balance as of September 30, 2018	$ 283,752	$ 845,611

(1) Amounts deposited in the QSFs may earn interest, which is generally used to pay administrative costs of the fund and is reflected in the table above as an increase to the QSF and Mesh Liability Accrual balances. Any interest remaining after all claims have been paid will generally be distributed to the claimants who participated in that settlement. The $5.0 million in the table above also includes a second quarter 2018 reclassification adjustment of $4.4 million for accrued interest amounts previously recorded in Accounts payable and accrued expenses in the Condensed Consolidated Balance Sheets.

As of September 30, 2018, $820.2 million of the mesh liability accrual amount shown above is classified in the Current portion of the legal settlement accrual in the Condensed Consolidated Balance Sheets, with the remainder classified as Long-term legal settlement accrual, less current portion. Charges related to vaginal mesh liability and associated legal fees and other expenses for all periods presented are reported in Discontinued operations, net of tax in our Condensed Consolidated Statements of Operations.

To date, the Company has made total mesh liability payments of approximately $3.1 billion, $283.8 million of which remains in the QSFs as of September 30, 2018. We expect to fund into the QSFs the remaining payments under all settlement agreements during the remainder of 2018 and 2019. As the funds are disbursed out of the QSFs from time to time, the liability accrual will be reduced accordingly with a corresponding reduction to restricted cash and cash equivalents. In addition, we may pay cash distributions to settle disputes separate from the QSFs, which will also decrease the liability accrual and decrease cash and cash equivalents.

We were contacted in October 2012 regarding a civil investigation initiated by a number of state attorneys general into mesh products, including transvaginal surgical mesh products designed to treat POP and SUI. In November 2013, we received a subpoena relating to this investigation from the state of California, and we have subsequently received additional subpoenas from California and other states. We are cooperating with these investigations.

We will continue to vigorously defend any unresolved claims and to explore other options as appropriate in our best interests. Similar matters may be brought by others or the foregoing matters may be expanded. We are unable to predict the outcome of these matters or to estimate the possible range of any additional losses that could be incurred.

Testosterone. Various manufacturers of prescription medications containing testosterone, including our subsidiaries Endo Pharmaceuticals Inc. (EPI) and Auxilium Pharmaceuticals, Inc. (subsequently converted to Auxilium Pharmaceuticals, LLC and hereinafter referred to as Auxilium), have been named as defendants in multiple lawsuits alleging personal injury resulting from the use of such medications, including FORTESTA® Gel, DELATESTRYL®, TESTIM®, TESTOPEL®, AVEED® and STRIANT®. Plaintiffs in these suits generally allege various personal injuries, including pulmonary embolism, stroke or other vascular and/or cardiac injuries, and seek compensatory and/or punitive damages, where available.

As of November 1, 2018, we were aware of approximately 1,205 testosterone cases (some of which may have been filed on behalf of multiple plaintiffs) pending against one or more of our subsidiaries in federal or state court. Many of these cases have been coordinated in a federal MDL pending in the U.S. District Court for the Northern District of Illinois (MDL No. 2545). In November 2015, the MDL court entered an order granting defendants' motion to dismiss claims involving certain testosterone products that were approved pursuant to ANDAs, including TESTOPEL®. Plaintiffs filed a motion for reconsideration and clarification of this order. In March 2016, the MDL court granted plaintiffs' motion in part and entered an order permitting certain claims to go forward to the extent they are based on allegations of fraudulent off-label marketing. An MDL trial against Auxilium involving TESTIM® took place in November 2017 and resulted in a defense verdict. A trial against Auxilium involving TESTIM® was scheduled for January 2018 in the Philadelphia Court of Common Pleas (PCCP) but resolved prior to trial.

In June 2018, counsel for plaintiffs, on the one hand, and Auxilium and EPI, on the other, executed an MSA allowing for the resolution of all known testosterone replacement therapy product liability claims against our subsidiaries. The MSA was solely by way of compromise and settlement and was not in any way an admission of fault by us or any of our subsidiaries.

The MSA is subject to a process that includes guidelines and procedures for administering the settlement and the release of funds. Among other things, the MSA provides for the creation of a QSF into which the settlement funds will be deposited, establishes participation requirements, and allows for a reduction of the total settlement payment in the event the participation threshold is not met. Distribution of funds to any individual claimant is conditioned upon the receipt of documentation substantiating product use and injury as determined by a third-party special master, the dismissal of any lawsuit and the release of the claim as to us and all affiliates. Prior to receiving funds, an individual claimant must represent and warrant that liens, assignment rights or other claims identified in the claims administration process have been or will be satisfied by the individual claimant. Confidentiality provisions apply to the settlement funds, amounts allocated to individual claimants and other terms of the agreement.

Although the Company believes it has appropriately estimated the probable total amount of loss associated with testosterone-related product liability matters as of the date of this report, it is reasonably possible that further claims may be filed or asserted and that adjustments to our liability accrual may be required. This could have a material adverse effect on our business, financial condition, results of operations and cash flows.

The MDL also includes a lawsuit filed in November 2014 in the U.S. District for the Northern District of Illinois against EPI, Auxilium and various other manufacturers of testosterone products on behalf of a proposed class of health insurance companies and other third party payers that claim to have paid for certain testosterone products. After a series of motions to dismiss, plaintiff filed a third amended complaint in April 2016, asserting civil claims for alleged violations of the Racketeer Influenced and Corrupt Organizations Act (RICO) and negligent misrepresentation based on defendants' marketing of certain testosterone products. The court denied a motion to dismiss this complaint in August 2016. In July 2018, the court denied plaintiff's motion for class certification. In October 2018, defendants moved for summary judgment. This lawsuit is not part of the settlement described above.

We will continue to vigorously defend any unresolved claims and to explore other options as appropriate in our best interests. Similar matters may be brought by others or the foregoing matters may be expanded. We are unable to predict the outcome of these matters or to estimate the possible range of any additional losses that could be incurred.

Unapproved Drug Litigation

In September 2013, the state of Louisiana filed a petition for damages against certain of our subsidiaries, including EPI, and more than 50 other pharmaceutical companies in Louisiana state court (19th Judicial District) alleging that the defendants or their subsidiaries marketed products that were not approved by the FDA and seeking damages, fines, penalties, attorneys' fees and costs under various causes of action. In October 2015, the district court entered judgment for defendants on their exception for no right of action. The state appealed, and in October 2016 the Louisiana First Circuit Court of Appeals reversed the dismissal as to the state's Medicaid Assistance Program Integrity Law (MAPIL) and Louisiana Unfair Trade Practices Act (LUTPA) claims but affirmed the dismissal as to the state's other claims. The state's petition for rehearing was denied in December 2016. Both sides applied to the Louisiana Supreme Court for a writ of certiorari to review the First Circuit's decision. Those writs were denied in March 2017. In May 2017, defendants filed exceptions for no cause of action in the district court. In August 2017, the court sustained defendants' exception as to the MAPIL claim but overruled defendants' exception as to the LUTPA claim. The state then filed a motion seeking reconsideration with respect to the MAPIL claim, and defendants filed a motion for clarification with respect to the court's ruling on the LUTPA claim. In October 2017, the court denied the state's motion and entered final judgment against the state with respect to the MAPIL claim. The court also granted defendants' motion for clarification and dismissed the state's LUTPA claim insofar as it sought civil penalties for alleged violations occurring before June 2, 2006. In October 2017, defendants applied for a supervisory writ of certiorari to the Louisiana First Circuit Court of Appeals on the district court's August 2017 order overruling defendants' exception on the state's LUTPA claim. The First Circuit Court of Appeals denied defendants' writ application in July 2018. In August 2018, the defendants filed an application for a supervisory writ of certiorari to the Louisiana Supreme Court. That writ application is fully briefed.

In March 2017, the state of Mississippi filed a complaint against our subsidiary EPI in Mississippi state court (Hinds County Chancery Court) alleging that EPI marketed products that were not approved by the FDA and seeking damages, penalties, attorneys' fees, costs and other relief under various causes of action. In April 2017, EPI removed the case to the U.S. District Court for the Southern District of Mississippi. In May 2017, the state moved to remand the case to state court, and that motion was granted in October 2017. In November 2017, EPI filed a motion to dismiss the state's complaint on various grounds. In January 2018, the state filed a motion for leave to amend its complaint. In February 2018, following an unopposed motion by the state, the court consolidated the state's case against EPI with five substantially similar cases brought by the state against other defendants. The consolidation is solely for purposes of coordinated pretrial proceedings and discovery, not for trial. In March 2018, the court signed an agreed order dismissing EPI and granting the state leave to file a first amended complaint. The first amended complaint names our subsidiary Generics International (US), Inc. (Generics) as the defendant. In April 2018, Generics moved to dismiss on various grounds. The case is currently stayed by agreement of the parties.

We will continue to vigorously defend the foregoing matters and to explore other options as appropriate in our best interests. Similar matters may be brought by others or the foregoing matters may be expanded. We are unable to predict the outcome of these matters or to estimate the possible range of any losses that could be incurred.

Opioid-Related Matters

Since 2014, multiple U.S. states, counties, other governmental persons or entities and private plaintiffs have filed suit against certain of our subsidiaries, including Endo Health Solutions Inc. (EHSI), EPI, Par Pharmaceutical, Inc. (PPI), Par Pharmaceutical Companies, Inc. (Par), Vintage Pharmaceuticals, LLC and/or Generics Bidco I, LLC and, in some instances, the Company, as well as various other manufacturers, distributors and/or others, asserting claims relating to defendants' alleged sales, marketing and/or distribution practices with respect to prescription opioid medications, including certain of our products. As of November 1, 2018, the cases of which we were aware include, but are not limited to, approximately 11 cases filed by or on behalf of states; approximately 1,505 cases filed by counties, cities, Native American tribes and/or other government-related persons or entities; approximately 112 cases filed by hospitals, health systems, unions, health and welfare funds or other third-party payers; and approximately 48 cases filed by individuals. Certain of the cases have been filed as putative class actions. In addition to the litigation in the U.S., in September 2018, an action against Paladin Labs, EPI, the Company and various other manufacturers and distributors was commenced in British Columbia on behalf of all federal, provincial and territorial governments and agencies in Canada that paid healthcare, pharmaceutical and treatment costs related to opioids.

Many of the U.S. cases have been coordinated in a federal MDL pending in the U.S. District Court for the Northern District of Ohio (MDL No. 2804). In March 2018, the U.S. Department of Justice (DOJ) filed a statement of interest in the case, and in April 2018 it filed a motion to participate in settlement discussions and as a friend of the court, which the MDL court has granted. The MDL court has issued a series of case management orders permitting motions to dismiss addressing threshold legal issues in certain cases, setting a trial date in September 2019 for three cases originally filed in the Northern District of Ohio, allowing certain discovery and establishing certain other deadlines and procedures, among other things.

Other cases remain pending in various state courts. In some jurisdictions, such as Connecticut, Illinois, New York, Pennsylvania and Texas, certain state court cases have been transferred to a single court within their respective state court systems for coordinated pretrial proceedings. The state cases are generally at the pleading and/or discovery stage.

The complaints in the cases assert a variety of claims including, but not limited to, claims for alleged violations of public nuisance, consumer protection, unfair trade practices, racketeering, Medicaid fraud and/or drug dealer liability statutes and/or common law claims for public nuisance, fraud/misrepresentation, strict liability, negligence and/or unjust enrichment. The claims are generally based on alleged misrepresentations and/or omissions in connection with the sale and marketing of prescription opioid medications and/or an alleged failure to take adequate steps to prevent abuse and diversion. Plaintiffs generally seek declaratory and/or injunctive relief; compensatory, punitive and/or treble damages; restitution, disgorgement, civil penalties, abatement, attorneys' fees, costs and/or other relief.

We will continue to vigorously defend the foregoing matters and to explore other options as appropriate in our best interests. Similar matters may be brought by others or the foregoing matters may be expanded. We are unable to predict the outcome of these matters or to estimate the possible range of any losses that could be incurred.

In addition to the lawsuits described above, the Company and/or its subsidiaries have received certain subpoenas, civil investigative demands (CIDs) and informal requests for information concerning the sale, marketing and/or distribution of prescription opioid medications, including the following:

In September 2017, the Department of Justice for the state of Oregon and the Office of the Attorney General for the Commonwealth of Massachusetts issued CIDs to EHSI and EPI on behalf of a multistate group which we understand currently includes approximately 30 states. Our subsidiaries are cooperating with this investigation. Certain states participating in the multistate investigation had issued their own CIDs, subpoenas or requests for information to the Company prior to their participation in the multistate investigation.

Other states are conducting their own investigations outside of the multistate group. These states include New Hampshire (subpoenas received by EPI in August 2015 and December 2017); New Jersey (subpoena received by EPI in March 2017); Washington (CID received by the Company, EHSI and EPI in August 2017); Montana (CID received by EHSI and EPI in January 2018); Alaska (CID received by EPI in February 2018); and South Carolina (CID received by EHSI and EPI in February 2018). We are cooperating with these investigations.

In January 2018, our subsidiary EPI received a federal grand jury subpoena from the U.S. District Court for the Southern District of Florida in connection with an investigation being conducted by the U.S. Attorney's Office for the Southern District of Florida in conjunction with the U.S. Food and Drug Administration. The subpoena seeks information related to OPANA® ER and other oxymorphone products. EPI is cooperating with the investigation.

Similar investigations may be brought by others or the foregoing matters may be expanded or result in litigation. We are unable to predict the outcome of these matters or to estimate the possible range of any losses that could be incurred.

Generic Drug Pricing Matters

In December 2014, we received a grand jury subpoena from the Antitrust Division of the DOJ issued by the U.S. District Court for the Eastern District of Pennsylvania to Par Pharmaceuticals. The subpoena requested documents and information focused primarily on product and pricing information relating to Par's authorized generic version of Lanoxin (digoxin) oral tablets and Par's generic doxycycline products, and on communications with competitors and others regarding those products. We are cooperating with the investigation.

In December 2015, EPI received interrogatories and a subpoena from the Connecticut Attorney General's Office requesting documents and information regarding pricing of certain of generic products, including doxycycline hyclate, amitriptyline hydrochloride, doxazosin mesylate, methotrexate sodium and oxybutynin chloride. EPI is cooperating with this investigation.

In May 2018, we and our subsidiary Par each received a CID from the U.S. Department of Justice in relation to a False Claims Act investigation concerning whether generic pharmaceutical manufacturers engaged in price fixing and market allocation agreements, paid illegal remuneration and caused the submission of false claims. We are cooperating with the investigation.

Similar investigations may be brought by others or the foregoing matters may be expanded or result in litigation. We are unable to predict the outcome of these matters or to estimate the possible range of any losses that could be incurred.

Certain cases alleging price-fixing and other anticompetitive conduct with respect to various generic pharmaceutical products have been consolidated and/or coordinated for pretrial proceedings in a federal MDL pending in the U.S. District Court for the Eastern District of Pennsylvania under the caption *In re Generic Pharmaceuticals Pricing Antitrust Litigation* (MDL No. 2724). Among the lawsuits consolidated and/or coordinated in the MDL, the earliest lawsuits naming the Company and/or its subsidiaries were filed in November 2016 and related to digoxin and doxycycline.

The private plaintiffs in the MDL include alleged direct purchasers, end-payers and indirect purchaser resellers who purport to represent not only themselves but also all others similarly situated. At the MDL court's direction, in August 2017, each group of private plaintiffs (direct purchasers, end-payers and indirect purchaser resellers) filed separate consolidated amended class action complaints as to each of 18 products, except with respect to one product (propranolol) direct purchaser plaintiffs stated their intention to proceed on a consolidated amended complaint filed in the U.S. District Court for the Southern District of New York prior to MDL transfer (the Southern District of New York had denied a motion to dismiss this complaint). Each of the consolidated amended complaints filed in August 2017 relates to one product, and our subsidiary PPI was named as a defendant in complaints relating to the following six products: digoxin, doxycycline hyclate, divalproex ER, propranolol, baclofen and amitriptyline hydrochloride. The MDL court divided the various cases into three separate product-based tranches for certain administrative and scheduling purposes, including briefing on motions to dismiss, and allowed certain targeted discovery. As to the six products in the first tranche (including digoxin, doxycycline hyclate and divalproex ER), defendants filed motions to dismiss in October 2017. In October 2018, the MDL court denied portions of these motions and has yet to rule on other aspects.

In December 2016, the Attorney General for the state of Connecticut, leading a coalition of 20 state attorneys general, filed a complaint in the U.S. District Court for the District of Connecticut alleging price-fixing and other anticompetitive conduct with respect to doxycycline hyclate delayed release and glyburide against certain manufacturers of those products. The Company and its subsidiaries were not named in that complaint, or in an amended complaint filed on behalf of 40 states in March 2017, or in a separate lawsuit filed by four more states and the District of Columbia in the same court in July 2017. In August 2017, the state cases were transferred to MDL No. 2724. In October 2017, the state plaintiffs filed a motion for leave to (1) consolidate their two cases, (2) add Alaska and the Commonwealth of Puerto Rico as plaintiffs and (3) assert additional claims against existing and new defendants. In June 2018, the MDL court granted this motion, and the state plaintiffs filed their amended complaint. The amended complaint adds new allegations and claims against 14 new defendants, including our subsidiary Par, relating to 13 additional products. The amended complaint alleges anticompetitive conduct by our subsidiary with respect to doxycycline monohydrate. It also alleges that all defendants engaged in an overarching conspiracy to restrain trade across the generic pharmaceutical industry and seeks to hold all defendants, including our subsidiary, jointly and severally liable for harm caused by alleged anticompetitive activity concerning each of the 15 drugs at issue. The amended complaint seeks declaratory and injunctive relief, disgorgement and other equitable relief, compensatory and treble damages, civil penalties, costs and attorneys' fees.

In January 2018, The Kroger Co., Albertsons Companies, LLC, and H.E. Butt Grocery Company LP filed a complaint in the U.S. District Court for the Eastern District of Pennsylvania against PPI, as well as numerous other manufacturers of generic pharmaceuticals, alleging anticompetitive conduct relating to 30 separate generic pharmaceutical products, including seven products allegedly manufactured by PPI: digoxin, doxycycline hyclate, doxycycline monohydrate, divalproex ER, propranolol, baclofen and amitriptyline hydrochloride. This lawsuit has been assigned to the MDL court. The complaint alleges an overarching conspiracy among all named defendants to engage in price-fixing for all 30 products, as well as product-specific conspiracies relating to each individual product, in violation of federal antitrust law. The complaint seeks monetary damages, including treble damages, attorneys' fees and injunctive relief.

In June 2018, direct purchaser, end-payer and indirect purchaser reseller plaintiffs filed additional class action complaints in the U.S. District Court for the Eastern District of Pennsylvania, alleging anticompetitive conduct relating to approximately 15 generic pharmaceuticals (generally those that were the subject of the state plaintiffs' amended complaint). These lawsuits have also been assigned to the MDL court. The end payer and indirect purchaser reseller complaints name our subsidiaries PPI, Generics Bidco I, LLC and DAVA Pharmaceuticals, LLC, as well as other companies, as defendants. The direct purchaser complaint names our subsidiary Par and other companies as defendants. As to our subsidiaries, these complaints allege anticompetitive conduct with respect to doxycycline hyclate, doxycycline monohydrate, nystatin cream and/or zoledronic acid. These complaints also seek to hold all defendants jointly and severally liable for alleged anticompetitive conduct relating to all products identified in the complaints on the basis of an "overarching conspiracy" theory similar to that asserted by the state plaintiffs.

In August 2018, Humana Inc. filed a complaint in the U.S. District Court for the Eastern District of Pennsylvania against the Company, PPI and Par, as well as numerous other manufacturers of generic pharmaceuticals, alleging anticompetitive conduct relating to approximately 16 generic pharmaceutical products, including amitriptyline, baclofen, digoxin, divalproex, doxycycline (both doxycycline hyclate and doxycycline monohydrate) and propranolol. The complaint alleges an overarching conspiracy among all named defendants to engage in price-fixing for all 16 products, as well as product-specific conspiracies relating to each individual product. The complaint asserts claims under state and federal law and seeks monetary damages, including treble damages, attorneys' fees and equitable relief. The lawsuit has been assigned to the MDL court.

In September 2018, Marion Diagnostic Center, LLC and Marion HealthCare, LLC filed a class action complaint in the U.S. District Court for the Eastern District of Pennsylvania against Par, as well as other manufacturers and one distributor of generic pharmaceuticals, McKesson Corporation (McKesson), on behalf of all direct purchasers of all generic drugs from McKesson. The complaint alleges an overarching conspiracy among all named defendants to engage in price-fixing and market allocation with respect to all generic drugs sold by McKesson, seeking to hold all defendants jointly and severally liable. The complaint asserts claims under state and federal law and seeks monetary damages, including treble damages, attorneys' fees and equitable relief.

We will continue to vigorously defend the foregoing matters and to explore other options as appropriate in our best interests. Similar matters may be brought by others or the foregoing matters may be expanded. We are unable to predict the outcome of these matters or to estimate the possible range of any losses that could be incurred.

Other Antitrust Matters

Beginning in November 2013, multiple direct and indirect purchasers of LIDODERM® filed a number of cases against our subsidiary EPI and co-defendants Teikoku Seiyaku Co., Ltd. and Teikoku Pharma USA, Inc. (collectively, Teikoku), and Actavis plc and certain of its subsidiaries (collectively, Actavis, which was subsequently acquired by Teva Pharmaceuticals Industries Ltd and its subsidiaries from Allergan plc). Plaintiffs generally alleged that EPI, Teikoku and Actavis entered into an anticompetitive conspiracy to restrain trade through the settlement of patent infringement litigation concerning U.S. Patent No. 5,827,529 (the '529 patent) and other patents. Some complaints also alleged that Teikoku wrongfully listed the '529 patent in FDA's Approved Drug Products with Therapeutic Equivalence Evaluations (Orange Book) as related to LIDODERM®, that EPI and Teikoku commenced sham patent litigation against Actavis and that EPI abused the FDA citizen petition process by filing a citizen petition and amendments solely to interfere with generic companies' efforts to obtain FDA approval of their versions of LIDODERM®. The complaints asserted claims under Sections 1 and 2 of the Sherman Act (15 U.S.C. §§ 1, 2), and/or various state antitrust and consumer protection statutes, as well as common law claims, and generally sought damages, treble damages, disgorgement of profits, restitution, injunctive relief and attorneys' fees. The cases were consolidated and/or coordinated in April 2014 in a federal MDL in the U.S. District Court for the Northern District of California (MDL No. 2521). The MDL court certified classes of direct and indirect purchasers in February 2017. In June 2017, defendants moved for summary judgment on all claims, and plaintiffs also moved for partial summary judgment on certain elements of their claims. In November 2017, the court granted defendants' motion in part, ruling in defendants' favor on the issues of infringement and derivation and also limiting the time period at issue. Defendants' motions for summary judgment were denied in all other respects. The court also granted plaintiffs' motions for summary judgment on the issues of agreement and relevant market. EPI settled with certain opt-out retailer plaintiffs in October 2017. EPI reached agreements to settle with the class plaintiffs in March 2018. In connection with the settlements, several indirect purchasers which previously had opted out were permitted to rejoin the class. The class settlement agreements provide for aggregate payments of approximately $100 million. In September 2018, the court approved the class settlement agreements and entered judgment dismissing the class cases with prejudice.

Beginning in June 2014, multiple direct and indirect purchasers of OPANA® ER filed cases against our subsidiaries EHSI and EPI and other pharmaceutical companies, including Impax Laboratories Inc. (Impax) and Penwest Pharmaceuticals Co., which our subsidiary EPI had acquired. Some cases were filed on behalf of putative classes of direct and indirect purchasers, while others were filed on behalf of individual retailers or health care benefit plans. All cases have been consolidated and/or coordinated for pretrial proceedings in a federal MDL pending in the U.S. District Court for the Northern District of Illinois (MDL No. 2580). Plaintiffs generally allege that an agreement reached by EPI and Impax to settle patent infringement litigation concerning multiple patents pertaining to OPANA® ER and EPI's introduction of reformulated OPANA® ER violated antitrust laws. The complaints assert claims under Sections 1 and 2 of the Sherman Act, various state antitrust and consumer protection statutes and/or state common law. Plaintiffs generally seek damages, treble damages, disgorgement of profits, restitution, injunctive relief and attorneys' fees. In February 2016, the MDL court issued orders (i) denying defendants' motion to dismiss the claims of the direct purchasers, (ii) denying in part and granting in part defendants' motion to dismiss the claims of the indirect purchasers, but giving them permission to file amended complaints and (iii) granting defendants' motion to dismiss the complaints filed by certain retailers, but giving them permission to file amended complaints. In response to the MDL court's orders, the indirect purchasers filed an amended complaint to which the defendants filed a renewed motion to dismiss certain claims, and certain retailers also filed amended complaints. The court has dismissed the indirect purchaser unjust enrichment claims arising under the laws of the states of California, Rhode Island and Illinois. The cases are currently in discovery. We will continue to vigorously defend these matters and to explore other options as appropriate in our best interests.

Beginning in February 2009, the FTC and certain private plaintiffs, including distributors and retailers, filed suit against our subsidiary Par Pharmaceutical Companies, Inc. (since June 2016, Endo Generics Holdings, Inc., and referred to in this Commitments and Contingencies note as EGHI) and others alleging violations of antitrust law arising out of EGHI's settlement of certain patent litigation concerning the generic version of AndroGel®. Generally, the complaints seek damages, treble damages, equitable relief and attorneys' fees and costs. The cases have been consolidated and/or coordinated for pretrial proceedings in a federal MDL pending in the U.S. District Court for the Northern District of Georgia (MDL No. 2084). In September 2012, the MDL court granted summary judgment to defendants on plaintiffs' claims of sham litigation. In May 2016, plaintiffs representing a putative class of indirect purchasers voluntarily dismissed their claims with prejudice. In February 2017, the FTC voluntarily dismissed its claims against EGHI with prejudice. Claims by certain alleged direct purchasers or their assignees are still pending. In June 2018, the MDL court granted in part and denied in part various summary judgment and evidentiary motions filed by defendants. In particular, the court rejected two of direct purchasers' three causation theories, rejected damages claims related to AndroGel® 1.62% and granted in part a motion seeking to exclude part of plaintiffs' proposed manufacturing expert's opinions. The motions were denied in all other respects, and the court denied a motion for reconsideration, or in the alternative leave to file an interlocutory appeal, in October 2018. In July 2018, the district court denied certain plaintiffs' motion for certification of a direct purchaser class. We will continue to vigorously defend these matters and to explore other options as appropriate in our best interests.

Beginning in February 2018, several alleged indirect purchasers filed proposed class actions against our subsidiary PPI and others alleging a conspiracy to delay generic competition and monopolize the market for Zetia® (ezetimibe) and its generic equivalents. The complaints generally asserted claims under Sections 1 and 2 of the Sherman Act, various state antitrust and consumer protection statutes and state common law and seek injunctive relief, damages, treble damages, attorneys' fees and costs. In June 2018, the cases were consolidated and/or coordinated for pretrial proceedings in a federal MDL pending in the U.S. District Court for the Eastern District of Virginia (MDL No. 2836). In September 2018, plaintiffs voluntarily dismissed without prejudice all claims against PPI.

Beginning in May 2018, multiple alleged direct and indirect purchasers filed complaints in the U.S. District Court for the Southern District of New York against PPI, EPI and/or us, as well as others, alleging a conspiracy to delay generic competition and monopolize the market for Exforge® (amlodipine/valsartan) and its generic equivalents. Some cases were filed on behalf of putative classes of direct and indirect purchasers; another was filed on behalf of individual retailers. The plaintiffs generally assert claims under Sections 1 and 2 of the Sherman Act, various state antitrust and consumer protection statutes and state common law and seek damages, treble damages, equitable relief and attorneys' fees and costs. In September 2018, the putative class plaintiffs stipulated to the dismissal without prejudice of their claims against EPI and us, and the retailer plaintiffs did the same in November 2018. PPI filed a partial motion to dismiss certain claims in September 2018. We intend to vigorously defend these matters and to explore other options as appropriate in our best interests.

In November 2014, EPI received a CID from Florida's Office of the Attorney General seeking documents and other information concerning EPI's agreement with Actavis settling the LIDODERM® patent litigation, as well as information concerning marketing and sales of LIDODERM®. EPI received similar CIDs from South Carolina's Office of the Attorney General in February 2016 and from Alaska's Office of the Attorney General in February 2015. The Alaska CID was also directed to EHSI and included requests for documents and information concerning agreements with Actavis and Impax settling the OPANA® ER patent litigation. We are cooperating with these investigations.

In February 2015, EGHI and affiliates received a CID from the Office of the Attorney General for the state of Alaska seeking production of certain documents and information regarding EGHI's settlement of the AndroGel® patent litigation as well as documents produced in the aforementioned litigation filed by the FTC. We are cooperating with this investigation.

Similar matters may be brought by others or the foregoing matters may be expanded. We are unable to predict the outcome of these matters or to estimate the possible range of any additional losses that could be incurred.

Securities Litigation

In May 2016, a putative class action entitled *Craig Friedman v. Endo International plc, Rajiv Kanishka Liyanaarchchie de Silva and Suketu P. Upadhyay* was filed in the U.S. District Court for the Southern District of New York by an individual shareholder on behalf of himself and all similarly situated shareholders. In August 2016, the court appointed Steamfitters' Industry Pension Fund and Steamfitters' Industry Security Benefit Fund as lead plaintiffs in the action. In October 2016, plaintiffs filed a second amended complaint that, among other things, added Paul Campanelli as a defendant, and we filed a motion to dismiss. In response, and without resolving the motion, the court permitted lead plaintiffs to file a third amended complaint. The amended complaint alleged violations of Sections 10(b) and 20(a) of the Exchange Act based on the Company's revision of its 2016 earnings guidance and certain disclosures about its generics business, the integration of Par Pharmaceutical Holdings, Inc. and its subsidiaries, certain other alleged business issues and the receipt of a CID from the U.S. Attorney's Office for the Southern District of New York regarding contracts with pharmacy benefit managers concerning FROVA®. Lead plaintiffs sought class certification, damages in an unspecified amount and attorneys' fees and costs. We filed a motion to dismiss the third amended complaint in December 2016. In January 2018, the court granted our motion and dismissed the case with prejudice. In February 2018, lead plaintiffs filed a motion for relief from the judgment and leave to file a fourth amended complaint; the court denied this motion in April 2018. Lead plaintiffs appealed to the U.S. Court of Appeals for the Second Circuit; that appeal is still pending.

In February 2017, a putative class action entitled *Public Employees' Retirement System of Mississippi v. Endo International plc* was filed in the Court of Common Pleas of Chester County, Pennsylvania by an institutional purchaser of shares in our June 2, 2015 public offering, on behalf of itself and all similarly situated purchasers. The lawsuit alleges violations of Sections 11, 12(a)(2) and 15 of the Securities Act of 1933 against Endo, certain of its current and former directors and officers, and the underwriters who participated in the offering, based on certain disclosures about Endo's generics business. In March 2017, defendants removed the case to the U.S. District Court for the Eastern District of Pennsylvania. In August 2017, the court remanded the case back to the Chester County Court of Common Pleas. In October 2017, plaintiff filed an amended complaint. In December 2017, defendants filed preliminary objections to the amended complaint. The court denied those preliminary objections in April 2018. The case is currently in discovery. Plaintiff filed its motion for class certification in July 2018.

In April 2017, a putative class action entitled *Phaedra A. Makris v. Endo International plc, Rajiv Kanishka Liyanaarchchie de Silva and Suketu P. Upadhyay* was filed in the Superior Court of Justice in Ontario, Canada by an individual shareholder on behalf of herself and similarly-situated Canadian-based investors who purchased Endo's securities between January 11 and May 5, 2016. The statement of claim generally seeks class certification, declaratory relief, damages, interest and costs based on alleged violations of the Ontario Securities Act. The statement of claim alleges negligent misrepresentations concerning the Company's revenues, profit margins and earnings per share; its receipt of a subpoena from the state of Connecticut regarding doxycycline hyclate, amitriptyline hydrochloride, doxazosin mesylate, methotrexate sodium and oxybutynin chloride; and the erosion of the Company's U.S. generic pharmaceuticals business.

In August 2017, a putative class action entitled *Bier v. Endo International plc, et al.* was filed in the U.S. District Court for the Eastern District of Pennsylvania by an individual shareholder on behalf of himself and all similarly situated shareholders. The original complaint alleged violations of Section 10(b) and 20(a) of the Exchange Act against Endo and four current and former directors and officers, based on the Company's decision to remove reformulated OPANA® ER from the market. In December 2017, the court appointed SEB Investment Management AB lead plaintiff in the action. In February 2018, the lead plaintiff filed an amended complaint, which added claims alleging violations of Sections 11 and 15 of the Securities Act in connection with the June 2015 offering. The amended complaint named the Company, EHSI and 20 current and former directors, officers and employees of Endo as defendants. In April 2018, the defendants moved to dismiss the amended complaint. That motion remains pending.

In November 2017, a putative class action entitled *Pelletier v. Endo International plc, Rajiv Kanishka Liyanaarchchie De Silva, Suketu P. Upadhyay, and Paul V. Campanelli* was filed in the U.S. District Court for the Eastern District of Pennsylvania by an individual shareholder on behalf of himself and all similarly situated shareholders. The lawsuit alleges violations of Section 10(b) and 20(a) of the Exchange Act relating to the pricing of various generic pharmaceutical products. In June 2018, the court appointed Park Employees' Annuity and Benefit Fund of Chicago lead plaintiff in the action. In August 2018, the lead plaintiff filed an amended complaint. In September 2018, the defendants moved to dismiss the amended complaint. That motion remains pending.

We will continue to vigorously defend the foregoing matters and to explore other options as appropriate in our best interests. Similar matters may be brought by others or the foregoing matters may be expanded. We are unable to predict the outcome of these matters or to estimate the possible range of any losses that could be incurred.

VASOSTRICT® Related Matters

In July 2016, Fresenius Kabi USA, LLC (Fresenius) filed a complaint against Par and its affiliate Par Sterile Products, LLC (PSP) in the U.S. District Court for the District of New Jersey alleging that Par and its affiliate engaged in an anticompetitive scheme to exclude competition from the market for vasopressin solution for intravenous injection in view of Par's VASOSTRICT® (vasopressin) product. The complaint alleges violations of Sections 1 and 2 of the Sherman Antitrust Act, as well as state antitrust and common law, based on assertions that Par and its affiliate entered into exclusive supply agreements with one or more active pharmaceutical ingredient (API) manufacturers and that, as a result, Fresenius has been unable to obtain vasopressin API in order to file an ANDA to obtain FDA approval for its own vasopressin product. Fresenius seeks actual, treble and punitive damages, attorneys' fees and costs, and injunctive relief. In September 2016, Par and its affiliate filed a motion to dismiss, which the district court denied in February 2017. The case is currently in discovery.

In August 2017, our subsidiaries PPI and PSP filed a complaint for actual, exemplary and punitive damages, injunctive relief and other relief against QuVa Pharma, Inc. (QuVa), Stuart Hinchen, Peter Jenkins, and Mike Rutkowski in the U.S. District Court for the District of New Jersey. The complaint alleges misappropriation in violation of the federal Defend Trade Secrets Act, New Jersey's Trade Secrets Act and New Jersey common law, as well as unfair competition, breach of contract, breach of fiduciary duty, breach of the duty of loyalty, tortious interference with contractual relations and breach of the duty of confidence in connection with VASOSTRICT®, a vasopressin-based cardiopulmonary drug. In October 2017, defendants answered the complaint and QuVa asserted counterclaims against PPI and PSP alleging unfair competition under New Jersey common law and seeking declaratory judgment of non-infringement as to five U.S. Patents assigned to PPI that are listed in FDA's Orange Book for VASOSTRICT®. The counterclaims seek actual, exemplary and punitive damages, injunctive relief and other relief. We filed a motion to dismiss the unfair competition counterclaim in November 2017. This motion is still pending. Also in November 2017, we filed a motion for preliminary injunction seeking various forms of relief. In January 2018, we filed a first amended complaint adding five former employees of PSP as defendants and numerous causes of action against some or all of those former employees, including misappropriation under the federal Defend Trade Secrets Act, New Jersey's Trade Secrets Act and New Jersey common law, as well as breach of contract, breach of the duty of loyalty and breach of the duty of confidence. In March 2018, the court granted in part our motion for preliminary injunction and enjoined QuVa from marketing and releasing its planned vasopressin product through the conclusion of trial. We subsequently deposited a bond to the court's interest-bearing account to secure the preliminary injunction. Defendants have filed a motion asking the court to reconsider the bond amount, which remains pending. Also in March 2018, QuVa and seven of the individual defendants filed a motion to dismiss the New Jersey common law claims, four of the individual defendants filed a motion to dismiss for lack of personal jurisdiction and one of the individuals filed a motion to dismiss the breach of contract claim. In April 2018, another individual defendant filed a motion to dismiss asserting numerous arguments, including lack of personal jurisdiction, improper venue and choice of law. These motions are still pending. Full discovery began in May 2018, but the court has not yet set a trial date. Also in May 2018, defendants filed a notice of appeal to the Third Circuit Court of Appeal indicating intent to appeal the court's preliminary injunction, and in October 2018, defendants filed their opening appellate brief.

In October 2017, Endo Par Innovation Company, LLC (EPIC) and PSP filed a complaint in the United States District Court for the District of Columbia challenging the legality of the FDA's *Interim Policy on Compounding Using Bulk Drug Substances Under Section 503B of the Federal Food, Drug, and Cosmetic Act* (January 2017) with respect to the listing of vasopressin in Category 1 of the *Interim Policy*. The complaint contends that the *Interim Policy* is unlawful because it is inconsistent with the Federal Food, Drug, and Cosmetic Act, including, but not limited to, Section 503B of that Act. The complaint seeks (i) a declaration that FDA's *Interim Policy* and its listing of vasopressin in Category 1 of the *Interim Policy* are unlawful, and (ii) an order enjoining and vacating the *Interim Policy* and FDA's listing of vasopressin in Category 1 of the *Interim Policy*. In January 2018, EPIC and PSP agreed to a temporary 60-day stay of the litigation in light of the FDA's announcement that forthcoming guidance would address the concerns set forth in the Company's complaint. In March 2018, the FDA released new draft guidance for industry entitled "Evaluation of Bulk Drug Substances Nominated for Use in Compounding Under Section 503B of the Federal Food, Drug, and Cosmetic Act." Shortly thereafter, the parties agreed to extend the temporary stay for an additional 180 days. In August 2018, before the 180-day stay period expired, Athenex Pharma Solutions, LLC and Athenex Pharmaceutical Division, LLC announced they had commenced bulk compounding of vasopressin, and moved to intervene in EPIC and PSP's case against the FDA. Later that month, EPIC and PSP invoked their ability to terminate the stay and filed a Motion for Preliminary Injunction. Before responding to the Motion for Preliminary Injunction, the FDA issued a notice containing a proposed finding that there is no clinical need to bulk compound vasopressin under Section 503B in August 2018. In September 2018, the FDA advised EPIC and PSP that it would agree to use its best efforts to finalize the vasopressin clinical need rulemaking by December 31, 2018, if the case were again stayed. As a result of the preliminary finding and the FDA's commitment to use best efforts to finalize the rulemaking by December 31, 2018, EPIC and PSP agreed to again stay the case until December 31, 2018. In a related action, in August 2018, Athenex filed a declaratory judgment action in the U.S. District Court for the Western District of New York, a case styled *Athenex v. Par*, alleging non-infringement and/or invalidity of the patents the Company has listed in the Orange Book in view of VASOSTRICT®. The Company also moved to dismiss Athenex's case on multiple grounds in October 2018.

In April 2018, PSP and PPI received a notice letter from Eagle Pharmaceuticals, Inc. (Eagle) advising of the filing by such company of an ANDA for a generic version of VASOSTRICT® (vasopressin IV solution (infusion)) 20 units/ml. In May 2018, PSP and PPI received a second notice letter from Eagle advising of the same filing, but adding an additional patent. The Paragraph IV Notices refer to U.S. Patent Nos. 9,375,478; 9,687,526; 9,744,209; 9,744,239; 9,750,785; and 9,937,223, which variously cover either vasopressin-containing pharmaceutical compositions or methods of using a vasopressin-containing dosage form to increase blood pressure in humans. In May 2018, PPI, PSP and EPIC filed a lawsuit against Eagle in the United States District Court for the District of Delaware within the 45-day deadline to invoke a 30-month stay of FDA approval pursuant to the Hatch-Waxman legislative scheme. In August 2018, Eagle filed an answer and a counterclaim for non-infringement and invalidity of asserted patents.

In September 2018, PSP and PPI received a notice letter from Sandoz Inc. (Sandoz) advising of the filing by such company of an ANDA for a generic version of VASOSTRICT® (vasopressin IV solution (infusion)) 200 units/10 ml. In October 2018, PPI, PSP and EPIC filed a lawsuit against Sandoz in the United States District Court for the District of New Jersey within the 45-day deadline to invoke a 30-month stay of FDA approval pursuant to the Hatch-Waxman legislative scheme. In October 2018, PSP and PPI received an additional notice letter from Sandoz advising of the filing by such company of an ANDA for a generic version of the 20 units/1 ml presentation for VASOSTRICT®. The 45-day deadline to invoke a 30-month stay of FDA approval pursuant to the Hatch-Waxman legislative scheme with respect to the additional notice letter has not yet expired. The Company continues to vigorously defend its intellectual property.

The Company's legal reserves include, among other things, an estimated accrual for certain VASOSTRICT®-related matters. We will continue to vigorously defend or prosecute the foregoing matters as appropriate, to protect our intellectual property rights, to pursue all available legal and regulatory avenues and to explore other options as appropriate in our best interests. Similar matters may be brought by others or the foregoing matters may be expanded. We are unable to predict the outcome of these matters or to estimate the possible range of any additional accruals that could be required.

Paragraph IV Certifications on OPANA® ER

In August 2014 and October 2014, the U.S. Patent Office issued U.S. Patent Nos. 8,808,737 and 8,871,779 respectively, which cover a method of using OPANA® ER and a highly pure version of the API of OPANA® ER. In November 2014, EPI filed lawsuits against Teva, ThoRx, Actavis, Impax, Ranbaxy, Roxane, Amneal and Sandoz Inc. based on their ANDAs filed against both the INTAC® technology and non-INTAC® technology versions of OPANA® ER. Those lawsuits were filed in the U.S. District Court for the District of Delaware alleging infringement of these new patents, which expire in 2027 and 2029, respectively. On November 17, 2015, the District Court held the '737 patent invalid for claiming unpatentable subject matter. That patent has been dismissed from all suits and the suits administratively closed as to that patent, subject to appeal at the end of the case on the '779 patent. In July 2016, a three-day trial was held in the U.S. District Court for the District of Delaware against Teva and Amneal for infringement of the '779 patent. In October 2016, the District Court issued an Opinion holding that the defendants infringed the claims of U.S. Patent No. 8,871,779. The Opinion also held that the defendants had failed to show that U.S. Patent No. 8,871,779 was invalid. The District Court issued an Order enjoining the defendants from launching their generic products until the expiration of U.S. Patent No. 8,871,779 in November 2029. A trial for infringement of the '799 patent by Actavis was held in February 2017 in the same court (U.S. District Court for the District of Delaware) in front of the same judge. In August 2017, the District Court issued an Opinion holding that Actavis infringed the claims of U.S. Patent No. 8,871,779, and that Actavis had failed to show that U.S. Patent No. 8,871,779 was invalid. Teva, Amneal and Actavis have appealed these holdings. We have appealed the holding that the '737 patent is invalid. A hearing on that appeal has been set for December 2018.

We will continue to vigorously defend or prosecute the foregoing matter as appropriate, to protect our intellectual property rights, to pursue all available legal and regulatory avenues and to explore other options as appropriate in our best interests in defense of our intellectual property, including enforcement of the product's intellectual property rights and approved labeling. We are unable to predict the outcome of these matters or to estimate the possible range of any losses that could be incurred.

Other Proceedings and Investigations

Proceedings similar to those described above may also be brought in the future. Additionally, we are involved in, or have been involved in, arbitrations or various other proceedings that arise from the normal course of our business. We cannot predict the timing or outcome of these other proceedings. Currently, neither we nor our subsidiaries are involved in any other proceedings that we expect to have a material effect on our business, financial condition, results of operations and cash flows.

NOTE 15. OTHER COMPREHENSIVE INCOME (LOSS)

Set forth below are the tax effects allocated to each component of Other comprehensive income (loss) for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	Three Months Ended September 30,					
	2018			2017		
	Before-Tax Amount	Tax (Expense) Benefit	Net-of-Tax Amount	Before-Tax Amount	Tax (Expense) Benefit	Net-of-Tax Amount
Net unrealized gain on securities:						
Unrealized gain arising during the period	$ —	$ —	$ —	$ 295	$ (107)	$ 188
Less: reclassification adjustments for (gain) loss realized in net loss	—	—	—	—	—	—
Net unrealized gains on securities	$ —	$ —	$ —	$ 295	$ (107)	$ 188
Net unrealized gain on foreign currency:						
Foreign currency translation gain arising during the period	4,735	—	4,735	9,941	—	9,941
Less: reclassification adjustments for loss realized in net loss	—	—	—	29,325	—	29,325
Foreign currency translation gain	$ 4,735	$ —	$ 4,735	$ 39,266	$ —	$ 39,266
Other comprehensive income	$ 4,735	$ —	$ 4,735	$ 39,561	$ (107)	$ 39,454

	Nine Months Ended September 30,					
	2018			2017		
	Before-Tax Amount	Tax (Expense) Benefit	Net-of-Tax Amount	Before-Tax Amount	Tax (Expense) Benefit	Net-of-Tax Amount
Net unrealized gain on securities:						
Unrealized gain arising during the period	$ —	$ —	$ —	$ 522	$ (189)	$ 333
Less: reclassification adjustments for (gain) loss realized in net loss	—	—	—	—	—	—
Net unrealized gains on securities	$ —	$ —	$ —	$ 522	$ (189)	$ 333
Net unrealized (loss) gain on foreign currency:						
Foreign currency translation (loss) gain arising during the period	(7,033)	—	(7,033)	35,415	—	35,415
Less: reclassification adjustments for loss realized in net loss	—	—	—	29,325	—	29,325
Foreign currency translation (loss) gain	$ (7,033)	$ —	$ (7,033)	$ 64,740	$ —	$ 64,740
Other comprehensive (loss) income	$ (7,033)	$ —	$ (7,033)	$ 65,262	$ (189)	$ 65,073

Reclassification adjustments out of Other comprehensive income related to foreign currency translation were recorded upon the liquidation of Litha in the third quarter of 2017.

Substantially all of the Company’s Accumulated other comprehensive loss at September 30, 2018 and December 31, 2017 consists of Foreign currency translation loss.

NOTE 16. SHAREHOLDERS' (DEFICIT) EQUITY

Changes in Shareholders' (Deficit) Equity

The following table displays a reconciliation of our beginning and ending balances in Total shareholders' equity (deficit) for the nine months ended September 30, 2018 (in thousands):

	Total Shareholders' Equity (Deficit)
Shareholders' equity at January 1, 2018, prior to the adoption of ASC 606	$ 484,880
Effect of adopting ASC 606 (1)	3,076
Shareholders' equity at January 1, 2018	$ 487,956
Net loss	(739,561)
Other comprehensive loss	(7,033)
Compensation related to share-based awards	43,722
Tax withholding for restricted shares	(5,082)
Exercise of options	473
Other	66
Shareholders' deficit at September 30, 2018	$ (219,459)

(1) Refer to Note 2. Summary of Significant Accounting Policies for further description of ASC 606.

Share-Based Compensation

During the second quarter of 2018, the Company’s shareholders approved an amendment to the Endo International plc Amended and Restated 2015 Stock Incentive Plan (the Plan). The Plan was amended and restated to increase the number of the Company’s ordinary shares that may be issued with respect to awards under the Plan by 5.0 million ordinary shares and to make certain other changes to the Plan’s terms.

The Company recognized share-based compensation expense of $13.7 million and $13.2 million during the three months ended September 30, 2018 and 2017, respectively, and $43.7 million and $40.3 million during the nine months ended September 30, 2018 and 2017, respectively. As of September 30, 2018, the total remaining unrecognized compensation cost related to non-vested share-based compensation awards amounted to $45.6 million.

During the third quarter of 2017, the Company issued approximately 1.0 million stock options and 0.1 million restricted stock units that were initially subject to shareholder approval and were subsequently approved by shareholders on June 7, 2018 at the Company’s Annual General Meeting of Shareholders. The options have an exercise price equal to the closing share price on their issuance date in August 2017.

There are 0.5 million performance share units outstanding as of September 30, 2018, representing target amounts, for which a grant date has not been established. No fair value has been ascribed to these awards as no grant date has been established. Accordingly, they are not reflected in the remaining unrecognized compensation cost above or the weighted average remaining requisite service period below.

Beginning in 2017, long-term cash incentive (LTCI) awards were provided to certain employees. LTCI awards were designed to vest ratably, in equal amounts, over a three-year service period. Upon vesting, each vested LTCI unit would be settled in cash in an amount equal to the price of Endo’s ordinary shares on the vest date. As of September 30, 2018, approximately 3.0 million unvested LTCI awards were outstanding with a weighted average remaining requisite service period of 2.3 years. A corresponding liability of $14.9 million was recorded as of September 30, 2018 in Accounts payable and accrued expenses and Other liabilities in the Company’s Condensed Consolidated Balance Sheets. On October 1, 2018, the Compensation Committee of the Company’s Board of Directors authorized the Company to settle each of the outstanding unvested LTCI awards in shares, rather than cash, upon vesting in accordance with the original vesting terms of the awards. With the authorization of the Compensation Committee, management’s intent to settle the awards in shares rather than cash is a modification that changes the awards’ classification from liability to equity, effective October 1, 2018. The accounting for the modification will occur in the fourth quarter of 2018. As of September 30, 2018, the LTCI awards are not reflected in the remaining unrecognized compensation cost above or the weighted average remaining requisite service period below.

As of September 30, 2018, the weighted average remaining requisite service period for non-vested stock options was 1.8 years and for non-vested restricted stock units was 2.0 years.

NOTE 17. OTHER INCOME, NET

The components of Other income, net for the three and nine months ended September 30, 2018 and 2017 are as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Net gain on sale of business and other assets	$ (2,866)	$ (2,763)	$ (29,859)	$ (5,074)
Foreign currency loss (gain), net	1,354	2,549	(734)	(4,305)
Net loss (gain) from our investments in the equity of other companies	842	(1,075)	3,163	(1,163)
Other miscellaneous, net	(837)	(808)	(5,786)	(301)
Other income, net	$ (1,507)	$ (2,097)	$ (33,216)	$ (10,843)

Net gain on sale of business and other assets primarily relates to proceeds received from the sale of various ANDAs during the three and nine months ended September 30, 2018. Foreign currency loss (gain), net results from the remeasurement of the Company's foreign currency denominated assets and liabilities. Net loss (gain) from our investments in the equity of other companies includes the income statement impacts of our investments in the equity of other companies, including those accounted for under the equity method and those classified as marketable securities.

NOTE 18. INCOME TAXES

The following table displays our Loss from continuing operations before income tax, Income tax expense (benefit) and Effective tax rate for the three and nine months ended September 30, 2018 and 2017 (dollars in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Loss from continuing operations before income tax	$ (143,068)	$ (127,796)	$ (671,559)	$ (1,058,647)
Income tax expense (benefit)	$ 3,003	$ (28,109)	$ 24,729	$ (97,517)
Effective tax rate	*(2.1)%*	*22.0%*	*(3.7)%*	*9.2%*

The income tax expense for the three months ended September 30, 2018 primarily relates to the geographic mix of pre-tax earnings. As of September 30, 2018, we had valuation allowances established against our deferred tax assets in most jurisdictions in which we operate, with the exception of Canada and India. The income tax benefit for the comparable 2017 period primarily relates to the geographic mix of pre-tax earnings and a discrete tax benefit primarily associated with the filing of the Company's 2016 U.S. federal income tax return and an intangible asset impairment.

The income tax expense for the nine months ended September 30, 2018 primarily relates to the geographic mix of pre-tax earnings and discrete tax expense incurred in connection with an intercompany asset restructuring. The income tax benefit for the comparable 2017 period relates primarily to the geographic mix of pre-tax earnings and the discrete tax benefits associated with goodwill and intangible asset impairments and the favorable return to provision adjustments resulting from the filing of the Company's 2016 U.S. federal income tax return.

During the year ended December 31, 2017, we recorded a benefit of $36.2 million as our estimate of the impact of the TCJA. This benefit, which is primarily related to the remeasurement of deferred tax liabilities related to tax deductible goodwill, was recorded in our Consolidated Statements of Operations as Income tax benefit during the three months ended December 31, 2017.

We recorded the aforementioned net benefit based on currently available information and interpretations of the TCJA. In accordance with authoritative guidance issued by the SEC, the income tax effect for certain aspects of the TCJA may represent provisional amounts for which our accounting is incomplete but a reasonable estimate could be determined. We consider amounts related to the various transition rules and interpretations of the TCJA to be provisional. Accordingly, we will continue to evaluate the impacts of the TCJA, including administrative and regulatory guidance as it becomes available. The measurement and existence of current and non-current income tax payables and/or the remeasurement of deferred tax assets and liabilities may change upon finalization of our analysis, which is expected to occur no later than one year from December 22, 2017, the date of the TCJA's enactment. Any adjustment to a provisional amount identified during the one-year measurement period will be recorded as an income tax expense or benefit in the period the adjustment is determined.

During the nine months ended September 30, 2018, we did not record any adjustments to the provisional amounts recognized in 2017. We will continue to monitor for any significant impact on the Company's consolidated financial statements with respect to the TCJA as more refined information and further guidance become available.

NOTE 19. NET LOSS PER SHARE

The following is a reconciliation of the numerator and denominator of basic and diluted net loss per share for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Numerator:				
Loss from continuing operations	$ (146,071)	$ (99,687)	$ (696,288)	$ (961,130)
(Loss) income from discontinued operations, net of tax	(27,134)	3,017	(43,273)	(705,886)
Net loss	$ (173,205)	$ (96,670)	$ (739,561)	$ (1,667,016)
Denominator:				
For basic per share data—weighted average shares	224,132	223,299	223,829	223,157
Dilutive effect of ordinary share equivalents	—	—	—	—
For diluted per share data—weighted average shares	224,132	223,299	223,829	223,157

Basic net loss per share data is computed based on the weighted average number of ordinary shares outstanding during the period. Diluted loss per share data is computed based on the weighted average number of ordinary shares outstanding and, if there is net income from continuing operations attributable to Endo ordinary shareholders during the period, the dilutive impact of ordinary share equivalents outstanding during the period.

Stock options and awards that have been issued but for which a grant date has not yet been established, such as the performance share units discussed in Note 16. Shareholders' (Deficit) Equity, are not considered in the calculation of basic or diluted weighted average shares.

All potentially dilutive items were excluded from the diluted share calculation for the three and nine months ended September 30, 2018 and 2017 because their effect would have been anti-dilutive, as the Company was in a loss position.

Item 2. ***Management's Discussion and Analysis of Financial Condition and Results of Operations***

The following Management's Discussion and Analysis of Financial Condition and Results of Operations describes the principal factors affecting the results of operations, liquidity and capital resources and critical accounting estimates of Endo International plc. This discussion should be read in conjunction with the accompanying quarterly unaudited Condensed Consolidated Financial Statements and our Annual Report on Form 10-K for the year ended December 31, 2017 (Annual Report). Our Annual Report includes additional information about our significant accounting policies, practices and the transactions that underlie our financial results, as well as a detailed discussion of the most significant risks and uncertainties associated with our financial and operating results. Except for the historical information contained in this report, including the following discussion, this report contains forward-looking statements that involve risks and uncertainties. See "Forward-Looking Statements" beginning on page i of this report.

Unless otherwise indicated or required by the context, references throughout to "Endo," the "Company," "we," "our" or "us" refer to financial information and transactions of Endo International plc and its subsidiaries.

RESULTS OF OPERATIONS

Our quarterly results have fluctuated in the past, and may continue to fluctuate. These fluctuations are primarily due to (1) the timing of new product launches, (2) purchasing patterns of our customers, (3) market acceptance of our products, (4) the impact of competitive products and products we recently acquired, (5) pricing of our products, (6) the timing of mergers, acquisitions, divestitures and other related activity and (7) other actions taken by the Company which may impact the availability of our products. These fluctuations are also attributable to charges incurred for compensation related to share-based payments, amortization of intangible assets, asset impairment charges, litigation-related charges, restructuring charges and certain upfront, milestone and other payments made or accrued pursuant to acquisition or licensing agreements. Additionally, the Company adopted ASC 606 on January 1, 2018 using the modified retrospective method for all revenue-generating contracts, including modifications thereto, that were not completed contracts at the date of adoption. Under the modified retrospective method, results beginning on January 1, 2018 are presented under ASC 606, while the comparative prior period results continue to be presented under ASC 605 based on the accounting standards originally in effect for such periods. Refer to Note 2. Summary of Significant Accounting Policies of the Condensed Consolidated Financial Statements included in Part I, Item 1 for additional information, including the impact of adoption on 2018 results.

Consolidated Results Review

The following table displays our revenue, gross margin, gross margin percentage and other pre-tax expense or income for the three and nine months ended September 30, 2018 and 2017 (dollars in thousands):

	Three Months Ended September 30,		% Change	Nine Months Ended September 30,		% Change
	2018	2017	2018 vs. 2017	2018	2017	2018 vs. 2017
Total revenues	$ 745,466	$ 786,887	(5)%	$ 2,160,689	$ 2,700,218	(20)%
Cost of revenues	412,965	514,522	(20)%	1,198,468	1,722,885	(30)%
Gross margin	$ 332,501	$ 272,365	22 %	$ 962,221	$ 977,333	(2)%
Gross margin percentage	*44.6%*	*34.6%*		*44.5%*	*36.2%*	
Selling, general and administrative	$ 163,791	$ 135,880	21 %	$ 478,615	$ 468,675	2 %
Research and development	39,683	39,644	— %	160,431	123,522	30 %
Litigation-related and other contingencies, net	(1,750)	(12,352)	(86)%	15,370	(14,016)	NM
Asset impairment charges	142,217	94,924	50 %	613,400	1,023,930	(40)%
Acquisition-related and integration items	1,288	16,641	(92)%	13,284	31,711	(58)%
Interest expense, net	131,847	127,521	3 %	385,896	361,267	7 %
Loss on extinguishment of debt	—	—	NM	—	51,734	(100)%
Other income, net	(1,507)	(2,097)	(28)%	$ (33,216)	(10,843)	NM
Loss from continuing operations before income tax	$ (143,068)	$ (127,796)	12 %	$ (671,559)	$ (1,058,647)	(37)%

NM indicates that the percentage change is not meaningful or is greater than 100%.

Total Revenues. The decreases for both the three and nine months ended September 30, 2018 are primarily due to competitive pressure on commoditized generic products, generic product rationalization initiatives, actions taken with respect to OPANA® ER that are further described below, generic competition on our U.S. Branded - Specialty & Established Pharmaceuticals segment's Established Products portfolio, our July 3, 2017 divestiture of Litha and our October 25, 2017 divestiture of Somar. Also contributing to the decrease for the nine months ended September 30, 2018 was the impact of the second quarter 2017 loss of marketing exclusivity for both ezetimibe tablets and quetiapine ER tablets. These declines were partially offset by continued strong performance from our U.S. Branded - Sterile Injectables segment, including VASOSTRICT®, ADRENALIN® and other products, and our U.S. Branded - Specialty & Established Pharmaceuticals segment's Specialty Products portfolio, which includes XIAFLEX®.

In March 2017, we announced that the Food and Drug Administration's (FDA) Drug Safety and Risk Management and Anesthetic and Analgesic Drug Products Advisory Committees voted that the benefits of reformulated OPANA® ER (oxymorphone hydrochloride extended release) no longer outweigh its risks. In June 2017, we became aware of the FDA's request that we voluntarily withdraw OPANA® ER from the market, and in July 2017, after careful consideration and consultation with the FDA, we decided to voluntarily remove OPANA® ER from the market. During the second quarter of 2017, we began to work with the FDA to coordinate an orderly withdrawal of the product from the market. By September 1, 2017, we ceased shipments of OPANA® ER to customers and we expect the New Drug Application will be withdrawn. These actions had an adverse effect on the revenues and results of operations of our U.S. Branded - Specialty & Established Pharmaceuticals segment during the three and nine months ended September 30, 2018 compared to the prior year periods.

Cost of revenues and gross margin percentage. During the three and nine months ended September 30, 2018 and 2017, we incurred certain charges that impact the comparability of total Cost of revenues, including those related to amortization expense and separation benefits and other cost reduction initiatives, including restructurings. The following table summarizes such amounts (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Amortization of intangible assets (1)	$ 161,275	$ 161,413	$ 471,662	$ 615,490
Separation benefits and other cost reduction initiatives (2)	$ 3,833	$ 78,680	$ 60,254	$ 93,266

(1) Amortization expense fluctuates based on changes in the total amount of amortizable intangible assets and the rate of amortization in effect for each intangible asset, both of which can vary based on factors such as the amount and timing of acquisitions, dispositions, asset impairment charges, transfers between indefinite- and finite-lived intangibles assets, changes in foreign currency rates and changes in the composition of our intangible assets impacting the weighted average useful lives and amortization methodologies being utilized. The decrease during the nine months ended September 30, 2018 was primarily driven by the impact of 2017 amortization expense for both ezetimibe tablets and quetiapine ER tablets, which were fully amortized prior to January 1, 2018, and asset impairment charges. This decrease was partially offset by the impact of certain in-process research and development assets put into service.

(2) Amounts primarily relate to certain accelerated depreciation charges, employee separation costs, charges to increase excess inventory reserves related to restructurings and other cost reduction and restructuring charges. See Note 4. Restructuring of the Condensed Consolidated Financial Statements included in Part I, Item 1 for discussion of our material restructuring initiatives.

The previously described decreases in total revenues, the decreases to amortization expense and decreased restructuring charges were the primary factors leading to the overall period-over-period decreases in Cost of revenues for the three and nine months ended September 30, 2018. Restructuring costs incurred during the periods presented primarily relate to the 2017 U.S. Generic Pharmaceuticals Restructuring Initiative and the January 2018 Restructuring Initiative. Our material restructuring initiatives are described more fully in Note 4. Restructuring of the Condensed Consolidated Financial Statements included in Part I, Item 1.

The increases in gross margin percentage for both the three and nine months ended September 30, 2018 were primarily attributable to the gross margin effects of the net Cost of revenues decreases included in the table above and the favorable margin impact of product rationalization efforts. Additionally, changes in the mix of total revenues, including a shift from generic to branded products, contributed to the overall increases in gross margin percentage.

Selling, general and administrative expenses. The increases for both the three and nine months ended September 30, 2018 were primarily a result of increased legal costs related to certain litigation matters and higher long-term cash incentive compensation expenses as a result of recent increases in our share price. Our material legal proceedings and other contingent matters are described in more detail in Note 14. Commitments and Contingencies of the Condensed Consolidated Financial Statements included in Part I, Item 1. The increase during the nine months ended September 30, 2018 was partially offset by cost reductions that were implemented throughout 2017 and 2018, including the impact of those related to various restructuring initiatives. Our material restructuring initiatives are described more fully in Note 4. Restructuring of the Condensed Consolidated Financial Statements included in Part I, Item 1.

Research and development expenses. During the first quarter of 2018, we initiated two Phase 3 trials for the treatment of cellulite in the buttocks, as well as the January 2018 Restructuring Initiative, which included a reorganization of our U.S. Generic Pharmaceuticals segment's research and development network. The January 2018 Restructuring Initiative is described more fully in Note 4. Restructuring of the Condensed Consolidated Financial Statements included in Part I, Item 1. During the second quarter of 2018, we entered into a development, license and commercialization agreement related to five sterile injectable product candidates, at which time we became obligated to make an upfront payment, which was recorded as Research and development expense in the Condensed Consolidated Statements of Operations. This agreement is described more fully in Note 10. License and Collaboration Agreements of the Condensed Consolidated Financial Statements included in Part I, Item 1.

The increase for the nine months ended September 30, 2018 was primarily a result of increased costs related to our cellulite treatment development program and the upfront payment discussed above. This increase was partially offset by cost savings related to the January 2018 Restructuring Initiative and other cost reduction initiatives.

In November 2018, we announced positive results from the two Phase 3 trials for the treatment of cellulite in the buttocks, where treated subjects showed highly statistically significant levels of improvement in the appearance of cellulite at day 71 as measured by the trials' primary endpoint. In addition, the RELEASE-1 trial passed 8 out of 8 key secondary endpoints and the RELEASE-2 trial passed 7 out of 8 key secondary endpoints. Finally, CCH was well-tolerated in the actively-treated subjects with most adverse events being mild to moderate in severity and primarily limited to the local injection area.

We expect to continue to incur expenses in 2018 related to the cellulite treatment development program. We also expect our U.S. Generic Pharmaceuticals R&D costs to continue to decline compared to 2017 as a result of decreases in costs associated with offshoring certain of our R&D activities to India and prioritizing assets within our portfolio. There can be no assurance that we will achieve these results.

Litigation-related and other contingencies, net. Included within Litigation-related and other contingencies, net are changes to our accruals for litigation-related settlement charges, reimbursements and certain settlements proceeds related to suits filed by our subsidiaries. Our material legal proceedings and other contingent matters are described in more detail in Note 14. Commitments and Contingencies of the Condensed Consolidated Financial Statements included in Part I, Item 1.

Asset impairment charges. The following table presents the components of our total Asset impairment charges for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Goodwill impairment charges	$ —	$ —	$ 391,000	$ 288,745
Other intangible asset impairment charges	140,609	78,300	217,576	674,177
Property, plant and equipment impairment charges	1,608	16,624	4,824	61,008
Total asset impairment charges	$ 142,217	$ 94,924	$ 613,400	$ 1,023,930

The factors leading to our material goodwill and intangible asset impairment tests, as well as the results of these tests, are further described in Note 9. Goodwill and Other Intangibles of the Condensed Consolidated Financial Statements included in Part I, Item 1. A discussion of critical accounting estimates made in connection with certain of our impairment tests is included below under the caption “CRITICAL ACCOUNTING ESTIMATES.”

Acquisition-related and integration items. The following table presents the components of our total Acquisition-related and integration items for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Net expense from changes in the fair value of acquisition-related contingent consideration	$ 769	$ 15,440	$ 11,731	$ 23,574
Other	519	1,201	1,553	8,137
Acquisition-related and integration items	$ 1,288	$ 16,641	$ 13,284	$ 31,711

Net expense from changes in the fair value of acquisition-related contingent consideration resulted from changes in market conditions impacting the commercial potential of the underlying products. See Note 7. Fair Value Measurements of the Condensed Consolidated Financial Statements included in Part I, Item 1 for further discussion of our acquisition-related contingent consideration.

The decreases in other Acquisition-related and integration items during both the three and nine months ended September 30, 2018 were primarily attributable to costs incurred in 2017 associated with prior acquisitions compared to lower costs in 2018, which related primarily to the pending acquisitions of Somerset and Wintac, which are further discussed in Note 5. Acquisitions of the Condensed Consolidated Financial Statements included in Part I, Item 1.

Interest expense, net. The components of Interest expense, net for the three and nine months ended September 30, 2018 and 2017 are as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Interest expense	$ 134,829	$ 128,672	$ 395,681	$ 365,479
Interest income	(2,982)	(1,151)	(9,785)	(4,212)
Interest expense, net	$ 131,847	$ 127,521	$ 385,896	$ 361,267

The increases in interest expense for both the three and nine months ended September 30, 2018 were primarily attributable to increased interest rates, including the effects of both increases in LIBOR, which impact our variable-rate debt, and the refinancing that occurred on April 27, 2017. Interest income varies primarily based on the amounts of our investments in money market funds and time deposits, as well as changes in the corresponding interest rates.

Loss on extinguishment of debt. Loss on extinguishment of debt totaled $51.7 million for the nine months ended September 30, 2017, with no such amounts recorded in any of the other periods presented. The amount during the nine months ended September 30, 2017 related to certain previously unamortized debt issuance costs that were charged to expense in connection with the refinancing that occurred on April 27, 2017.

Other income, net. The components of Other income, net for the three and nine months ended September 30, 2018 and 2017 are as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Net gain on sale of business and other assets	$ (2,866)	$ (2,763)	$ (29,859)	$ (5,074)
Foreign currency loss (gain), net	1,354	2,549	(734)	(4,305)
Net loss (gain) from our investments in the equity of other companies	842	(1,075)	3,163	(1,163)
Other miscellaneous, net	(837)	(808)	(5,786)	(301)
Other income, net	$ (1,507)	$ (2,097)	$ (33,216)	$ (10,843)

Net gain on sale of business and other assets primarily relates to proceeds received from the sale of various ANDAs during the three and nine months ended September 30, 2018. Foreign currency loss (gain), net results from the remeasurement of the Company's foreign currency denominated assets and liabilities. Net loss (gain) from our investments in the equity of other companies includes the income statement impacts of our investments in the equity of other companies, including those accounted for under the equity method and those classified as marketable securities.

Income tax expense (benefit). The following table displays our Loss from continuing operations before income tax, Income tax expense (benefit) and Effective tax rate for the three and nine months ended September 30, 2018 and 2017 (dollars in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Loss from continuing operations before income tax	$ (143,068)	$ (127,796)	$ (671,559)	$ (1,058,647)
Income tax expense (benefit)	$ 3,003	$ (28,109)	$ 24,729	$ (97,517)
Effective tax rate	*(2.1)%*	*22.0%*	*(3.7)%*	*9.2%*

Our tax rate is affected by recurring items, such as tax rates in non-U.S. jurisdictions as compared to the notional U.S. federal statutory tax rate, and the relative amount of income or loss in those various jurisdictions. It is also impacted by certain items that may occur in any given period, but are not consistent from period to period.

The income tax expense for the three months ended September 30, 2018 primarily relates to the geographic mix of pre-tax earnings. The income tax benefit for the comparable 2017 period primarily relates to the geographic mix of pre-tax earnings and a discrete tax benefit primarily associated with the filing of the Company's 2016 U.S. federal income tax return and an intangible asset impairment.

The income tax expense for the nine months ended September 30, 2018 primarily relates to the geographic mix of pre-tax earnings and discrete tax expense incurred in connection with an intercompany asset restructuring. The income tax benefit for the comparable 2017 period relates primarily to the geographic mix of pre-tax earnings and the discrete tax benefits associated with goodwill and intangible asset impairments and the favorable return to provision adjustments resulting from the filing of the Company's 2016 U.S. federal income tax return.

Although the TCJA reduced the notional U.S. federal statutory tax rate, because the Company has valuation allowances established against its U.S. federal deferred tax assets, as of September 30, 2018, we do not expect a significant reduction in our future tax expense. Moreover, we have valuation allowances established against our deferred tax assets in most other jurisdictions in which we operate, with the exception of Canada and India. Accordingly, it would be unlikely for future pre-tax losses to create a tax benefit that would be more likely than not to be realized.

In addition, the Internal Revenue Service (IRS) presently is examining certain of our subsidiaries' United States income tax returns for fiscal years ending between December 31, 2011 and December 31, 2015 and, in connection with those examinations, is reviewing our tax positions related to, among other things, certain intercompany arrangements, including the level of profit earned by our United States subsidiaries pursuant to such arrangements, and a worthless stock deduction directly attributable to product liability losses. The IRS may examine our tax returns for other fiscal years. Such examinations may lead to proposed or actual adjustments to our taxes that may be material, individually or in the aggregate. An adverse outcome of these tax examinations could have a material adverse effect on our business, financial position, results of operations and growth prospects. See the risk factor "We may not be able to successfully maintain our low tax rates or other tax positions, which could adversely affect our businesses and financial condition, results of operations and growth prospects" in Part II, Item 1A of this document for more information.

For additional information on our income taxes, see Note 18. Income Taxes of the Condensed Consolidated Financial Statements included in Part I, Item 1.

Discontinued operations, net of tax. The operating results of our Astora business are reported as Discontinued operations, net of tax in the Condensed Consolidated Statements of Operations for all periods presented. The results of our discontinued operations, net of tax, totaled $27.1 million and $43.3 million of loss during the three and nine months ended September 30, 2018, respectively, compared to $3.0 million of income and $705.9 million of loss, respectively, in the comparable 2017 periods.

The primary driver of the period-over-period changes for both the three and nine months ended September 30, 2018 was the after-tax impact of charges related to mesh litigation. Mesh-related charges during the three and nine months ended September 30, 2018 totaled $19.0 million. This compares to $775.5 million during the nine months ended September 30, 2017, with no comparable charges taken during the three months ended September 30, 2017. Additionally, following the settlement strategy we pursued in 2017, there were decreases in mesh-related legal defense costs during both the three and nine months ended September 30, 2018. For additional discussion of mesh-related matters, refer to Note 14. Commitments and Contingencies of the Condensed Consolidated Financial Statements included in Part I, Item 1.

2018 Outlook

We estimate that our 2018 total revenues will be between $2.87 billion and $2.92 billion. This estimate reflects an anticipated decline in our U.S. Generic Pharmaceuticals segment driven by the expiration of the marketing exclusivity periods for both ezetimibe tablets and quetiapine ER tablets in the second quarter of 2017, the impact of product rationalization initiatives resulting from the 2016 and 2017 U.S. Generic Pharmaceuticals segment restructuring initiatives and continued competitive pressure on commoditized generic products; a decline in our U.S. Branded - Specialty & Established Pharmaceuticals segment resulting from the continued decline in the Established Products portfolio partly driven by the ceasing of shipments of OPANA® ER by September 1, 2017, partially offset by growth in the Specialty Products portfolio primarily driven by XIAFLEX®; a decline in the International Pharmaceuticals segment primarily due to the divestitures of Litha and Somar; partially offset by growth in the U.S. Branded - Sterile Injectables segment. The Company anticipates continued margin improvement in 2018 compared to 2017 driven by cost efficiencies associated with our U.S. Generic Pharmaceuticals segment restructuring initiatives, a continued shift in product mix to higher margin products and targeted cost reductions in selling, general and administrative expenses. We will continue to invest in XIAFLEX® and other core products to position the Company for long-term success. There can be no assurance that we will achieve these results.

Business Segment Results Review

The four reportable business segments in which we operate are: (1) U.S. Branded - Specialty & Established Pharmaceuticals (2) U.S. Branded - Sterile Injectables, (3) U.S. Generic Pharmaceuticals and (4) International Pharmaceuticals. Our segments reflect the level at which the chief operating decision maker regularly reviews financial information to assess performance and to make decisions about resources to be allocated. Each segment derives revenue from the sales or licensing of its respective products and is discussed in more detail below.

We evaluate segment performance based on each segment's adjusted income from continuing operations before income tax, a financial measure not determined in accordance with U.S. GAAP, which we define as Loss from continuing operations before income tax and before certain upfront and milestone payments to partners; acquisition-related and integration items, including transaction costs, earn-out payments or adjustments, changes in the fair value of contingent consideration and bridge financing costs; cost reduction and integration-related initiatives such as separation benefits, retention payments, other exit costs and certain costs associated with integrating an acquired company's operations; asset impairment charges; amortization of intangible assets; inventory step-up recorded as part of our acquisitions; litigation-related and other contingent matters; gains or losses from early termination of debt; gains or losses from the sales of businesses and other assets; foreign currency gains or losses on intercompany financing arrangements; and certain other items.

Certain of the corporate expenses incurred by us are not attributable to any specific segment. Accordingly, these costs are not allocated to any of our segments and are included in the results below as "Corporate unallocated costs." Interest income and expense are also considered corporate items and not allocated to any of our segments. Our consolidated adjusted income from continuing operations before income tax is equal to the combined results of each of our segments less these unallocated corporate items.

We refer to adjusted income from continuing operations before income tax in making operating decisions because we believe it provides meaningful supplemental information regarding our operational performance. For instance, we believe that this measure facilitates internal comparisons to our historical operating results and comparisons to competitors' results. We believe this measure is useful to investors in allowing for greater transparency related to supplemental information used in our financial and operational decision-making. In addition, we have historically reported similar financial measures to our investors and believe that the inclusion of comparative numbers provides consistency in our current financial reporting. Further, we believe that adjusted income from continuing operations before income tax may be useful to investors as we are aware that certain of our significant shareholders utilize adjusted income from continuing operations before income tax to evaluate our financial performance. Finally, adjusted income from continuing operations before income tax is utilized in the calculation of adjusted diluted income per share, which is used by the Compensation Committee of Endo's Board of Directors in assessing the performance and compensation of substantially all of our employees, including our executive officers.

There are limitations to using financial measures such as adjusted income from continuing operations before income tax. Other companies in our industry may define adjusted income from continuing operations before income tax differently than we do. As a result, it may be difficult to use adjusted income from continuing operations before income tax or similarly named adjusted financial measures that other companies may use to compare the performance of those companies to our performance. Because of these limitations, adjusted income from continuing operations before income tax is not intended to represent cash flow from operations as defined by U.S. GAAP and should not be used as alternatives to net income as indicators of operating performance or to cash flows as measures of liquidity. We compensate for these limitations by providing reconciliations of our total segment adjusted income from continuing operations before income tax to our consolidated Loss from continuing operations before income tax, which is determined in accordance with U.S. GAAP and included in our Condensed Consolidated Statements of Operations.

Revenues. The following table displays our revenue by reportable segment for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	Three Months Ended September 30,		% Change	Nine Months Ended September 30,		% Change
	2018	2017	2018 vs. 2017	2018	2017	2018 vs. 2017
U.S. Branded - Specialty & Established Pharmaceuticals	$ 220,100	$ 233,803	(6)%	$ 632,972	$ 729,150	(13)%
U.S. Branded - Sterile Injectables	237,150	201,905	17 %	670,847	554,365	21 %
U.S. Generic Pharmaceuticals	257,969	294,749	(12)%	748,445	1,227,584	(39)%
International Pharmaceuticals (1)	30,247	56,430	(46)%	108,425	189,119	(43)%
Total net revenues from external customers	$ 745,466	$ 786,887	(5)%	$ 2,160,689	$ 2,700,218	(20)%

(1) Revenues generated by our International Pharmaceuticals segment are primarily attributable to external customers located in Canada and, prior to the sale of Litha on July 3, 2017 and Somar on October 25, 2017, South Africa and Latin America, respectively.

U.S. Branded - Specialty & Established Pharmaceuticals. The following table displays the significant components of our U.S. Branded - Specialty & Established Pharmaceuticals revenues from external customers for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	Three Months Ended September 30,		% Change	Nine Months Ended September 30,		% Change
	2018	2017	2018 vs. 2017	2018	2017	2018 vs. 2017
Specialty Products:						
XIAFLEX®	$ 64,214	$ 52,511	22 %	$ 184,855	$ 152,113	22 %
SUPPRELIN® LA	20,408	20,638	(1)%	60,948	63,468	(4)%
Other Specialty (1)	43,576	40,634	7 %	114,202	113,407	1 %
Total Specialty Products	$ 128,198	$ 113,783	13 %	$ 360,005	$ 328,988	9 %
Established Products:						
PERCOCET®	$ 30,730	$ 31,349	(2)%	$ 93,539	$ 93,183	— %
VOLTAREN® Gel	15,057	19,102	(21)%	44,185	53,646	(18)%
OPANA® ER	—	14,756	(100)%	—	82,056	(100)%
Other Established (2)	46,115	54,813	(16)%	135,243	171,277	(21)%
Total Established Products	$ 91,902	$ 120,020	(23)%	$ 272,967	$ 400,162	(32)%
Total U.S. Branded - Specialty & Established Pharmaceuticals (3)	$ 220,100	$ 233,803	(6)%	$ 632,972	$ 729,150	(13)%

(1) Products included within Other Specialty include TESTOPEL®, NASCOBAL® Nasal Spray and AVEED®.
(2) Products included within Other Established include, but are not limited to, LIDODERM®, EDEX®, TESTIM® and FORTESTA® Gel, including the authorized generics.
(3) Individual products presented above represent the top two performing products in each product category and/or any product having revenues in excess of $25 million during any quarterly period in 2018 or 2017.

Specialty Products

The increases in net sales of XIAFLEX® for both the three and nine months ended September 30, 2018 were primarily attributable to demand growth driven by the continued investment and promotional efforts behind XIAFLEX®.

The decreases in net sales of SUPPRELIN® LA for both the three and nine months ended September 30, 2018 were primarily attributable to decreases in volume.

The increases in net sales of Other Specialty Products for both the three and nine months ended September 30, 2018 were primarily attributable to increased sales of NASCOBAL® Nasal Spray and AVEED®, partially offset by lower sales of TESTOPEL®. When compared to 2017, this product portfolio generally benefited from increased volumes, offset by decreases in price.

Established Products

The decrease in net sales of PERCOCET® for the three months ended September 30, 2018 was primarily attributable to volume decreases, partially offset by price increases.

The decreases in net sales of VOLTAREN® Gel for both the three and nine months ended September 30, 2018 were primarily attributable to volume and price decreases as a result of ongoing competitive pressure from generic competition. To the extent additional competitors are able to launch generic versions of VOLTAREN® Gel, our revenues could decline further.

The decreases in net sales of OPANA® ER for both the three and nine months ended September 30, 2018 relate to our cessation of shipments of OPANA® ER to customers by September 1, 2017, as further described above.

Net sales of Other Established Products for both the three and nine months ended September 30, 2018 were negatively impacted primarily by volume decreases resulting from generic competition.

U.S. Branded - Sterile Injectables. The following table displays the significant components of our U.S. Branded - Sterile Injectables revenues from external customers for the three and nine months ended September 30, 2018 and 2017 (dollars in thousands):

	Three Months Ended September 30,		% Change	Nine Months Ended September 30,		% Change
	2018	2017	2018 vs. 2017	2018	2017	2018 vs. 2017
VASOSTRICT®	$ 112,333	$ 105,741	6 %	$ 332,387	$ 300,649	11%
ADRENALIN®	35,460	25,335	40 %	101,858	50,464	NM
Ertapenem for injection	25,798	—	NM	25,798	—	NM
Other Sterile Injectables (1)	63,559	70,829	(10)%	210,804	203,252	4%
Total U.S. Branded - Sterile Injectables (2)	$ 237,150	$ 201,905	17 %	$ 670,847	$ 554,365	21%

NM indicates that the percentage change is not meaningful or is greater than 100%.

(1) Products included within Other Sterile Injectables include, but are not limited to, APLISOL® and ephedrine sulfate injection.

(2) Individual products presented above represent the top two performing products within the U.S. Branded - Sterile Injectables segment and/or any product having revenues in excess of $25 million during any quarterly period in 2018 or 2017.

Net sales of VASOSTRICT® and ADRENALIN® increased during both the three and nine months ended September 30, 2018 due to increases in both price and volume. Sales of ADRENALIN® also benefited from the market withdrawal of competing unapproved sources beginning in May of 2017. VASOSTRICT® is currently the first and only vasopressin injection with an NDA approved by the FDA. We have been issued six patents relating to VASOSTRICT® by the U.S. Patent and Trademark Office (PTO). These patents are listed in the Orange Book. The FDA requires any applicant seeking FDA approval for vasopressin prior to patent expiry and relying on VASOSTRICT® as the Reference Listed Drug to notify us of filing before the FDA will issue an approval.

We are aware of certain competitive actions taken by other pharmaceutical companies related to VASOSTRICT®, which include the filing of ANDAs for generic versions of VASOSTRICT® and the commencement of bulk compounding of vasopressin, the active ingredient of VASOSTRICT®. These matters are further discussed in Note 14. Commitments and Contingencies of the Condensed Consolidated Financial Statements included in Part I, Item 1 under the heading “VASOSTRICT® Related Matters.” We have taken and plan to continue to take action in our best interest to protect our rights with respect to VASOSTRICT®. The introduction of any compounded or generic of versions of VASOSTRICT® could result in reductions to our market share, profitability and cash flows.

Ertapenem for injection, the authorized generic of Invanz®, launched during the third quarter of 2018 and had no sales in 2017.

The decrease in Other Sterile Injectables for the three months ended September 30, 2018 was primarily driven by generic competition on certain products within this category. During the nine months ended September 30, 2018, Other Sterile Injectables benefited from increased net sales from a number of products, including the impacts of new product launches, increased market share and certain price increases.

U.S. Generic Pharmaceuticals. Continued competitive pressure on commoditized generic products and the impact of product rationalization initiatives resulting from prior restructurings resulted in revenue decreases for both the three and nine months ended September 30, 2018. Additionally, included within this segment's revenues for the nine months ended September 30, 2017 are ezetimibe tablets and quetiapine ER tablets, both of which are first-to-file products launched in the fourth quarter of 2016. Combined net sales for these two products for the nine months ended September 30, 2017 were $253.3 million. The marketing exclusivity periods for both ezetimibe tablets and quetiapine ER tablets expired in the second quarter of 2017. As a result, combined revenues for these products declined significantly during the second quarter of 2017 and beyond. Partially offsetting the decreases for both the three and nine months ended September 30, 2018 was the impact of certain recent product launches including, among others, colchicine tablets, the authorized generic of Colcrys®, which launched in July 2018.

International Pharmaceuticals. The decreases in revenue for the International Pharmaceuticals segment for both the three and nine months ended September 30, 2018 were primarily attributable to the combined impact of our divestitures of Litha in July 2017 and Somar in October 2017. Additionally, certain other products within this segment decreased during the three months ended September 30, 2018 and increased during the nine months ended September 30, 2018. For additional detail regarding the divestitures of Litha and Somar refer to Note 3. Discontinued Operations and Divestitures of the Condensed Consolidated Financial Statements included in Part I, Item 1.

Adjusted income from continuing operations before income tax. The following table displays our Adjusted income from continuing operations before income tax by reportable segment for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	Three Months Ended September 30,		% Change	Nine Months Ended September 30,		% Change
	2018	2017	2018 vs. 2017	2018	2017	2018 vs. 2017
U.S. Branded - Specialty & Established Pharmaceuticals	$ 84,891	$ 123,754	(31)%	$ 262,454	$ 380,841	(31)%
U.S. Branded - Sterile Injectables	170,329	150,531	13 %	513,082	417,060	23 %
U.S. Generic Pharmaceuticals	82,555	86,236	(4)%	247,137	415,172	(40)%
International Pharmaceuticals	13,377	17,434	(23)%	45,594	47,128	(3)%
Total segment adjusted income from continuing operations before income tax	$ 351,152	$ 377,955	(7)%	$ 1,068,267	$ 1,260,201	(15)%

U.S. Branded - Specialty & Established Pharmaceuticals. Amounts were negatively impacted during both the three and nine months ended September 30, 2018 as a result of decreased revenues and gross margins related to generic competition and the cessation of shipments of OPANA® ER by September 1, 2017. Additionally, R&D expenses increased as a result of our cellulite treatment development program and legal costs related to certain litigation matters also increased. Our material legal proceedings and other contingent matters are described in more detail in Note 14. Commitments and Contingencies of the Condensed Consolidated Financial Statements included in Part I, Item 1.

U.S. Branded - Sterile Injectables. The increases for both the three and nine months ended September 30, 2018 were primarily driven by increased revenues and gross margins resulting from strong performance of a variety of products in this segment as described above.

U.S. Generic Pharmaceuticals. The decreases for both the three and nine months ended September 30, 2018 were primarily attributable to decreased revenues as described above and the resulting reduction to gross margin. Partially offsetting the decreases were cost reductions, including the impact of the 2017 U.S. Generic Pharmaceuticals Restructuring Initiative and the January 2018 Restructuring Initiative, which are described more fully in Note 4. Restructuring of the Condensed Consolidated Financial Statements included in Part I, Item 1.

International Pharmaceuticals. The decreases for both the three and nine months ended September 30, 2018 were primarily attributable to the combined impact of the July 3, 2017 divestiture of Litha and October 25, 2017 divestiture of Somar. Also contributing to respective changes were the gross margin effects of the revenue results of certain other International Pharmaceuticals products, as described above.

The table below provides reconciliations of our consolidated Loss from continuing operations before income tax, which is determined in accordance with U.S. GAAP, to our total segment adjusted income from continuing operations before income tax for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Total consolidated loss from continuing operations before income tax	$ (143,068)	$ (127,796)	$ (671,559)	$ (1,058,647)
Interest expense, net	131,847	127,521	385,896	361,267
Corporate unallocated costs (1)	49,187	33,035	144,693	114,655
Amortization of intangible assets	161,275	161,413	471,662	615,490
Inventory step-up	71	66	261	281
Upfront and milestone payments to partners	4,731	775	43,027	6,952
Separation benefits and other cost reduction initiatives (2)	4,001	80,693	82,141	127,977
Certain litigation-related and other contingencies, net (3)	(1,750)	(12,352)	15,370	(14,016)
Asset impairment charges (4)	142,217	94,924	613,400	1,023,930
Acquisition-related and integration items (5)	1,288	16,641	13,284	31,711
Loss on extinguishment of debt	—	—	—	51,734
Foreign currency impact related to the remeasurement of intercompany debt instruments	1,528	3,005	(1,560)	(2,922)
Other, net (6)	(175)	30	(28,348)	1,789
Total segment adjusted income from continuing operations before income tax	$ 351,152	$ 377,955	$ 1,068,267	$ 1,260,201

(1) Amounts include certain corporate overhead costs, such as headcount and facility expenses and certain other income and expenses.

(2) Amounts for the three and nine months ended September 30, 2018 relate to employee separation costs of $2.1 million and $32.7 million, respectively, charges to increase excess inventory reserves of $0.2 million and $2.8 million, respectively, and other charges of $1.7 million and $11.4 million, respectively, each of which related primarily to our restructuring initiatives. Also included in the amount for the nine months ended September 30, 2018 is accelerated depreciation of $35.2 million, which related to the 2017 U.S. Generic Pharmaceuticals Restructuring Initiative. During the three and nine months ended September 30, 2017, amounts primarily relate to employee separation costs of $19.8 million and $41.3 million, accelerated depreciation of $59.8 million and $60.2 million, other charges of $1.1 million and $18.5 million, respectively, and charges to increase excess inventory reserves of $7.9 million during the nine months ended September 30, 2017. These charges were related primarily to the 2017 U.S. Generics Pharmaceuticals restructuring initiative. See Note 4. Restructuring of the Condensed Consolidated Financial Statements included in Part I, Item 1 for discussion of our material restructuring initiatives.

(3) Amounts include adjustments for Litigation-related and other contingencies, net as further described in Note 14. Commitments and Contingencies.

(4) Amounts primarily relate to charges to impair goodwill and intangible assets as further described in Note 9. Goodwill and Other Intangibles as well as charges to write down certain property, plant and equipment as further described in Note 7. Fair Value Measurements.

(5) Amounts during the three and nine months ended September 30, 2018 are primarily related to charges due to changes in the fair value of contingent consideration of $0.8 million and $11.7 million, respectively. Amounts during the three and nine months ended September 30, 2017 include charges due to changes in the fair value of contingent consideration of $15.4 million and $23.6 million, respectively. All other amounts are directly related to costs associated with acquisition and integration efforts.

(6) Amounts during the three and nine months ended September 30, 2018 primarily relate to gains on sales of businesses and other assets, as further described in Note 17. Other income, net.

LIQUIDITY AND CAPITAL RESOURCES

Our principal source of liquidity is cash generated from operations. Our principal liquidity requirements are primarily for working capital for operations, licenses, milestone payments, capital expenditures, acquisitions, contingent liabilities, vaginal mesh liability payments and debt service payments. The Company’s working capital was $254.1 million at September 30, 2018 compared to working capital of $50.2 million at December 31, 2017. The amounts at September 30, 2018 and December 31, 2017 include restricted cash and cash equivalents of $283.8 million and $313.8 million, respectively, held in Qualified Settlement Funds (QSFs) for mesh-related matters. Although these amounts in QSFs are included in working capital, they are required to be used for mesh product liability settlement agreements that are expected to be paid to qualified claimants within the next twelve months.

Cash and cash equivalents, which primarily consisted of bank deposits, time deposits and money market accounts, totaled $1,118.9 million at September 30, 2018 compared to $986.6 million at December 31, 2017. We expect cash generated from operations together with our cash, cash equivalents, restricted cash, restricted cash equivalents and the revolving credit facilities to be sufficient to cover our principal liquidity requirements over the next year. However, on a longer term basis, we may not be able to accurately predict the effect of certain developments on our sales and gross margins, such as the degree of market acceptance, patent protection and exclusivity of our products, pricing pressures (including those due to the impact of competition), the effectiveness of our sales and marketing efforts and the outcome of our current efforts to develop, receive approval for and successfully launch our product candidates. We may also face unexpected expenses in connection with our business operations, including expenses related to our ongoing and future legal proceedings and governmental investigations and other contingent liabilities. Furthermore, we may not be successful in implementing, or may face unexpected changes or expenses in connection with our strategic direction, including the potential for opportunistic corporate development transactions. Any of the above could adversely affect our future cash flows.

We may need to obtain additional funding to repay our outstanding indebtedness, for our future operational needs or for future transactions. We have historically had broad access to financial markets that provide liquidity; however, we cannot be certain that funding will be available on terms acceptable to us, or at all. Any issuances of equity securities or convertible securities could have a dilutive effect on the ownership interest of our current shareholders and may adversely impact net income per share in future periods. An acquisition may be accretive or dilutive and, by its nature, involves numerous risks and uncertainties. As a result of acquisition efforts, if any, we are likely to experience significant charges to earnings for merger and related expenses (whether or not the acquisitions are consummated) that may include transaction costs, closure costs or costs of restructuring activities.

Borrowings. At September 30, 2018, under the 2017 Credit Agreement, the Company had outstanding borrowings with an aggregate principal amount of $3,372.3 million and additional availability of approximately $997.2 million under its revolving credit facility.

The 2017 Credit Agreement contains affirmative and negative covenants that the Company believes to be usual and customary for a senior secured credit facility. The negative covenants include, among other things, limitations on asset sales, mergers and acquisitions, indebtedness, liens, dividends and other restrictive payments, investments and transactions with the Company's affiliates. As of September 30, 2018, we were in compliance with all such covenants.

At September 30, 2018, the Company's indebtedness also includes senior notes with aggregate principal amounts totaling $5.0 billion. These notes mature between 2022 and 2025, subject to earlier repurchase or redemption in accordance with the terms of the respective indentures. Interest rates on these notes range from 5.375% to 7.25%. Other than the 5.875% Senior Secured Notes due 2024, these notes are senior unsecured obligations of the Company's subsidiaries party to the applicable indenture governing such notes. These notes are issued by certain of our subsidiaries and are guaranteed on a senior unsecured basis by the subsidiaries of Endo International plc that also guarantee our 2017 Credit Agreement, except for a de minimis amount of the 7.25% Senior Notes due 2022, which are issued by Endo Health Solutions Inc. and guaranteed on a senior unsecured basis by the guarantors named in the Fifth Supplemental Indenture relating to such notes. The 5.875% Senior Secured Notes due 2024 are senior secured obligations of Endo International plc and its subsidiaries that are party to the indenture governing such notes. These notes are issued by certain of our subsidiaries and are guaranteed on a senior secured basis by Endo International plc and its subsidiaries that also guarantee our 2017 Credit Agreement.

The indentures governing our various senior notes contain affirmative and negative covenants that the Company believes to be usual and customary for similar indentures. The negative covenants, among other things, restrict the Company's ability, and the ability of its restricted subsidiaries, to incur certain additional indebtedness and issue preferred stock, make certain investments and restricted payments, sell certain assets, enter into sale and leaseback transactions, agree to payment restrictions on the ability of restricted subsidiaries to make certain payments to Endo International plc or any of its restricted subsidiaries, create certain liens, merge, consolidate or sell all or substantially all of the Company's assets or enter into certain transactions with affiliates. As of September 30, 2018, we were in compliance with all covenants.

The obligations of the borrowers under the 2017 Credit Agreement are guaranteed by the Company and the subsidiaries of the Company (with certain customary exceptions) (the Guarantors and, together with the Borrowers, the Loan Parties). The obligations (i) under the 2017 Credit Agreement and related loan documents and (ii) the indenture governing the 5.875% Senior Secured Notes due 2024 and related documents are secured on a *pari passu* basis by a perfected first priority (subject to permitted liens) lien on substantially all of the assets of the Loan Parties (subject to customary exceptions).

Credit ratings. The Company's corporate credit ratings assigned by Moody's Investors Service and Standard & Poor's are B2 with a negative outlook and B with a stable outlook, respectively.

Working capital. The components of our working capital and our liquidity at September 30, 2018 and December 31, 2017 are below (dollars in thousands):

	September 30, 2018	December 31, 2017
Total current assets	$ 2,275,599	$ 2,271,077
Less: total current liabilities	(2,021,468)	(2,220,909)
Working capital	$ 254,131	$ 50,168
Current ratio	1.1:1	1.0:1

Net working capital increased by $204.0 million from December 31, 2017 to September 30, 2018. This increase reflects the favorable impact to net current assets resulting from operations during the nine months ended September 30, 2018, partially offset by certain items including, but not limited to, the working capital effect of net decreases in long-term litigation-related liabilities of $175.0 million, purchases of property, plant and equipment, excluding capitalized interest, of $56.5 million and net decreases in the aggregate principal amount of noncurrent debt of $25.7 million.

The following table summarizes our Condensed Consolidated Statements of Cash Flows for the nine months ended September 30, 2018 and 2017 (in thousands):

	2018	2017
Net cash flow provided by (used in):		
Operating activities	$ 196,992	$ 422,162
Investing activities	(13,682)	8,964
Financing activities	(62,808)	(135,353)
Effect of foreign exchange rate	(608)	3,983
Movement in cash held for sale	—	(1,450)
Net increase in cash, cash equivalents, restricted cash and restricted cash equivalents	$ 119,894	$ 298,306

Operating activities. Net cash provided by operating activities represents the cash receipts and cash disbursements from all of our activities other than investing activities and financing activities. Changes in cash from operating activities reflect, among other things, the timing of cash collections from customers, payments to suppliers, managed care organizations, government agencies, collaborative partners and employees, as well as tax payments and refunds in the ordinary course of business.

The $225.2 million decrease in Net cash provided by operating activities for the nine months ended September 30, 2018 compared to the prior year period was primarily the result of the timing of cash collections and cash payments related to our operations. In particular, net sales of ezetimibe tablets and quetiapine ER tablets, which were launched in the fourth quarter of 2016 and for which the marketing exclusivity periods expired in the second quarter of 2017, generated significant cash receipts during the nine months ended September 30, 2017 that did not reoccur during the same period in 2018. Additionally, cash paid for interest for the nine months ended September 30, 2018 increased from the prior year period as a result of the April 2017 refinancing and changes in interest rates. These decreases were partially offset by a decline in cash outlays for mesh settlements, which decreased $283.4 million during the nine months September 30, 2018 from the prior year period.

Investing activities. The $22.6 million change in Net cash (used in) provided by investing activities for the nine months ended September 30, 2018 compared to the prior year period reflects a decrease in net proceeds from the sales of businesses and other assets of $52.3 million. Amounts during the nine months ended September 30, 2018 primarily relate to proceeds from the sales of various ANDAs, as well as additional proceeds received in 2018 from our 2017 sale of Litha. Amounts during the comparable prior year period primarily relate to our sales of Litha and our Charlotte, North Carolina manufacturing facilities. Also contributing to the change in Net cash (used in) provided by investing activities was a decrease in proceeds from notes receivable of $7.0 million during the nine months ended September 30, 2018 compared to the nine months ended September 30, 2017. These items were partially offset by a decrease in purchases of property, plant and equipment, excluding capitalized interest of $37.6 million.

Financing activities. The $72.5 million decrease in Net cash used in financing activities for the nine months ended September 30, 2018 compared to the prior year period reflects a decrease in principal payments on term loans of $3,696.8 million, a decrease in deferred financing fees of $57.4 million and a decrease in payments for contingent consideration of $35.0 million, partially offset by a decrease in proceeds from issuance of term loans of $3,415.0 million and a decrease in proceeds from issuance of notes of $300.0 million.

Contractual Obligations. As of September 30, 2018, there were no material changes in our contractual obligations from those disclosed in our Annual Report on Form 10-K for the year ended December 31, 2017, filed with the Securities and Exchange Commission on February 27, 2018.

Fluctuations. Our quarterly results have fluctuated in the past and may continue to fluctuate. These fluctuations may be due to the timing of new product launches, purchasing patterns of our customers, market acceptance of our products, the impact of competitive products and pricing, certain actions taken by us which may impact the availability of our products, asset impairment charges, litigation-related charges, restructuring costs, including separation benefits, business combination transaction costs, upfront, milestone and certain other payments made or accrued pursuant to licensing agreements and changes in the fair value of financial instruments and contingent assets and liabilities recorded as part of business combinations. Further, a substantial portion of our total revenues are through three wholesale drug distributors who in turn supply our products to pharmacies, hospitals and physicians. Accordingly, we are potentially subject to a concentration of credit risk with respect to our trade receivables.

Inflation. We do not believe that inflation had a material adverse effect on our financial statements for the periods presented.

Off-balance sheet arrangements. We have no off-balance sheet arrangements as defined in Item 303(a)(4) of Regulation S-K.

CRITICAL ACCOUNTING ESTIMATES

Significant changes to our critical accounting estimates since December 31, 2017 are detailed below. For additional discussion of the Company's critical accounting estimates, see "Critical Accounting Estimates" in Item 7 of our Annual Report on Form 10-K for the year ended December 31, 2017 filed with the Securities and Exchange Commission on February 27, 2018.

Revenue recognition

The Company adopted ASC 606 on January 1, 2018 using the modified retrospective method for all revenue-generating contracts, including modifications thereto, that were not completed contracts at the date of adoption. For further discussion of the impact of adoption, refer to Note 2. Summary of Significant Accounting Policies of the Condensed Consolidated Financial Statements included in Part I, Item 1. ASC 606 applies to contracts with commercial substance that establish the payment terms and each party's rights regarding the goods or services to be transferred, to the extent collection of substantially all of the related consideration is probable. Under ASC 606, we recognize revenue for contracts meeting these criteria when (or as) we satisfy our performance obligations for such contracts by transferring control of the underlying promised goods or services to our customers. The amount of revenue we recognize reflects our estimate of the consideration we expect to be entitled to receive, subject to certain constraints, in exchange for such goods or services. This amount is referred to as the transaction price.

Our revenue consists almost entirely of sales of our pharmaceutical products to customers, whereby we ship products to a customer pursuant to a purchase order. For contracts such as these, revenue is recognized when our contractual performance obligations have been fulfilled and control has been transferred to the customer pursuant to the contract's terms, which is generally upon delivery to the customer. The amount of revenue we recognize is equal to the fixed amount of the transaction price, adjusted for our estimates of a number of significant variable components including, but not limited to, estimates for chargebacks, rebates, sales incentives and allowances, distribution service agreement and other fees for services, returns and allowances. The Company utilizes the expected value method when estimating the amount of variable consideration to include in the transaction price with respect to each of the foregoing variable components and the most likely amount method when estimating the amount of variable consideration to include in the transaction price with respect to future potential milestone payments that do not qualify for the sales- and usage-based royalty exception. The variable component of the transaction price is estimated based on historical experience, estimated future trends, estimated customer inventory levels, current contract sales terms with our direct and indirect customers and other competitive factors. Variable consideration is included in the transaction price only to the extent that it is probable that a significant revenue reversal will not occur when the uncertainty associated with the variable consideration is resolved.

We believe that speculative buying of product, particularly in anticipation of possible price increases, has been the historical practice of certain of our customers. The timing of purchasing decisions made by wholesaler and large retail chain customers can materially affect the level of our sales in any particular period. Accordingly, our sales may not correlate to the number of prescriptions written for our products based on external third-party data.

We have entered into distribution service agreements with certain of our significant wholesaler customers that obligate the wholesalers, in exchange for fees paid by us, to: (i) manage the variability of their purchases and inventory levels within specified limits based on product demand and (ii) provide us with specific services, including the provision of periodic retail demand information and current inventory levels for our pharmaceutical products held at their warehouse locations.

Goodwill and indefinite-lived intangible assets

As further described in Note 9. Goodwill and Other Intangibles of the Condensed Consolidated Financial Statements included in Part I, Item 1, as a result of the first quarter 2018 change in reportable segments and resulting goodwill impairment tests performed during the three months ended March 31, 2018, we recorded a pre-tax, non-cash goodwill impairment charge relating to our new U.S. Generic Pharmaceuticals reporting unit of $391.0 million. A 50 basis point increase in the assumed discount rate used in the impairment test would have increased this goodwill impairment charge by approximately $60 million. Additionally, with respect to the first quarter 2018 goodwill impairment tests performed related to our former Generics and new U.S. Branded - Sterile Injectables reporting units, which did not result in impairment charges, a 50 basis point increase in the assumed discount rates would not have changed the results of these tests.

We have not made any substantial changes to our methodology used in our impairment tests since our previous assessment. Determination of the fair value of a reporting unit is a matter of judgment and involves the use of estimates and assumptions, which are based on management's best estimates at the time. The use of different assumptions would increase or decrease our estimated discounted future cash flows and the resulting estimated fair value of our reporting units, and could result in the fair value of a reporting unit being less than its carrying amount in the impairment test. Any resulting non-cash impairment charges could be material.

RECENT ACCOUNTING PRONOUNCEMENTS

For a discussion of recent accounting pronouncements, refer to Note 2. Summary of Significant Accounting Policies in the Condensed Consolidated Financial Statements in Part I, Item 1.

Item 3. ***Quantitative and Qualitative Disclosures About Market Risk***

Market risk is the potential loss arising from adverse changes in the financial markets, including interest rates and foreign currency exchange rates.

Interest Rate Risk

Our exposure to interest rate risk relates primarily to our variable rate indebtedness associated with our term loan and revolving credit facilities. At September 30, 2018, our variable-rate debt borrowings related to our term loan facilities and had an aggregate principal amount of $3.4 billion. Borrowings under our credit facilities bear interest at a LIBOR-based variable rate. A hypothetical 1% increase in the applicable rate over the floor would result in $33.7 million in incremental annual interest expense related to our variable-rate debt borrowings.

To the extent that we utilize amounts under our revolving credit facilities or take on additional variable rate indebtedness, we will be exposed to additional interest rate risk.

As of September 30, 2018 and December 31, 2017, we had no other assets or liabilities with significant interest rate sensitivity.

Foreign Currency Exchange Risk

We operate and transact business in various foreign countries and are therefore subject to risks associated with foreign currency exchange rate fluctuations. The Company manages this foreign currency risk, in part, through operational means including managing foreign currency revenues in relation to same currency costs as well as managing foreign currency assets in relation to same currency liabilities. The Company is also exposed to the potential earnings effects from intercompany foreign currency assets and liabilities that arise from normal trade receivables and payables and other intercompany loans. Additionally, certain of the Company's subsidiaries maintain their books of record in currencies other than their respective functional currencies. These subsidiaries' financial statements are remeasured into their respective functional currencies using current or historic exchange rates. Such remeasurement adjustments could have an adverse effect on the Company's results of operations.

All assets and liabilities of our international subsidiaries, which maintain their financial statements in local currency, are translated to U.S. dollars at period-end exchange rates. Translation adjustments arising from the use of differing exchange rates are included in Accumulated other comprehensive loss in shareholders' (deficit) equity. Gains and losses on foreign currency transactions and short-term intercompany receivables from foreign subsidiaries are included in Other income, net in the Condensed Consolidated Statements of Operations. Refer to Note 17. Other income, net in Part I, Item 1 for the amount of Foreign currency loss (gain), net.

Based on the Company's significant foreign currency denominated intercompany loans existing at September 30, 2018, we estimate that a 10% change in the underlying currencies of our foreign currency denominated intercompany loans, relative to the U.S. Dollar, could result in approximately $4.5 million in incremental foreign currency losses.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

The Company's management, with the participation of the Company's Chief Executive Officer and Principal Financial Officer, has evaluated the effectiveness of the Company's disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as of September 30, 2018. Based on that evaluation, the Company's Chief Executive Officer and Principal Financial Officer concluded that the Company's disclosure controls and procedures were effective as of September 30, 2018.

Changes in Internal Control over Financial Reporting

There have been no changes in the Company's internal control over financial reporting during the fiscal quarter ended September 30, 2018 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

The disclosures under Note 14. Commitments and Contingencies of the Condensed Consolidated Financial Statements included in Part I, Item 1 are incorporated into this Part II, Item 1 by reference.

Item 1A. Risk Factors

For a discussion of our risk factors, see the information in Item 1A. “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2017, and the information in Part II, Item 1A under the caption “Risk Factors” of our Quarterly Report on Form 10-Q for the three months ended March 31, 2018. There have been no material changes in our risk factors from those described in our Annual Report or our Quarterly Reports, except as set forth below.

If we fail to successfully identify and develop additional generic pharmaceutical products, obtain exclusive marketing rights for our generic products or fail to introduce these generic products on a timely basis, our revenues, gross margin and operating results may decline.

We may not be successful in our efforts to continue to create a pipeline of product candidates or develop commercially successful products. Identifying, developing and obtaining regulatory approval and commercializing additional product candidates is prone to risks of failure inherent in drug development. For example, our research programs may initially show promise in identifying potential additional product candidates, yet fail to yield results for a number of reasons, including, among others, that the research methodology used may not be successful. No assurance can be given that we will be able to successfully identify additional product candidates, advance any of these additional product candidates through the development process or successfully commercialize any such additional product candidates. If we are unable to successfully identify, develop and commercialize additional product candidates, our revenues and operating results may decline significantly and our prospects and business may be materially adversely affected.

Even if we are able to identify and develop additional product candidates, we may fail to obtain exclusive marketing rights for such product candidates or fail to introduce such product candidates on a timely basis. Subject to certain exceptions and limitations, the Hatch-Waxman amendments to the Federal Food, Drug, and Cosmetic Act (FFDCA) provide for a period of 180 days of marketing exclusivity for a generic version of a previously approved drug for any applicant that is the first to file an ANDA containing a certification of invalidity, non-infringement or unenforceability related to a patent listed with respect to the corresponding brand-name drug (commonly referred to as a Paragraph IV certification). Our revenues have historically included and may from time to time continue to include sales of generic drugs with limited competition resulting from this 180-day marketing exclusivity period or other factors, and the amounts of such revenues may be material. ANDAs that contain Paragraph IV certifications challenging patents, however, generally become the subject of patent litigation that can be both lengthy and costly. There is no certainty that we will prevail in any such litigation, that we will be the first-to-file and be granted the 180-day marketing exclusivity period, or, if we are granted the 180-day marketing exclusivity period, that we will not forfeit such period. Even where we are awarded marketing exclusivity, we may be required to share our exclusivity period with other ANDA applicants who submit Paragraph IV certifications. In addition, brand-name pharmaceutical companies often authorize a generic version of the corresponding brand-name drug to be sold during any period of marketing exclusivity that is awarded. Authorized generics are not prohibited from sale during the 180-day marketing exclusivity period. Furthermore, timely commencement of the litigation by the patent owner imposes an automatic stay of ANDA approval by the FDA for 30 months, unless the case is decided in the ANDA applicant’s favor during that period. Finally, if the court decision is adverse to the ANDA applicant, the ANDA approval will be delayed until the challenged patent expires, and the applicant will not be granted 180 days of marketing exclusivity.

The future profitability of our U.S. Generic Pharmaceuticals segment depends, to a significant extent, upon our ability to introduce, on a timely basis, new generic products that are either the first-to-market (or among the first-to-market) or that otherwise can gain significant market share during the 180-day marketing period as permitted by the Hatch-Waxman Act. Our ability to timely bring our products to market is dependent upon, among other things, the timing of regulatory approval of our products, which to a large extent is outside of our control, as well as the timing of competing products. Our revenues and future profitability are dependent, in large part, upon our ability or the ability of our development partners to file, timely and effectively, ANDAs with the FDA or similar filings with other regulatory agencies, or to enter into contractual relationships with other parties that have obtained marketing exclusivity. No assurances can be given that we will be able to develop and introduce commercially successful products in the future within the time constraints necessary to be successful. If we or our development partners are unable to continue to timely and effectively file ANDAs with the FDA or similar filings with other regulatory agencies, or to partner with other parties that have obtained marketing exclusivity, our revenues and operating results may decline significantly and our prospects and business may be materially adversely affected.

We have been, continue to be and may be the subject of product liability claims, other significant litigation matters, government investigations or product recalls for which we may be unable to obtain or maintain insurance adequate to cover potential liabilities.

Our business exposes us to significant potential risk from product liability claims, other significant litigation matters, government investigations or product recalls, including, but not limited to, such matters associated with the testing, manufacturing, marketing and sale of our products. We have been, continue to be and may be subject to various product liability cases, other significant litigations and government investigations. For example, we, along with other manufacturers of prescription opioid medications, are the subject of lawsuits and have received subpoenas and other requests for information from various state and local government agencies regarding the sales and marketing of opioid medications. In addition to direct expenditures for damages, settlement and defense costs, there is a possibility of adverse publicity, loss of revenues and disruption of business as a result of product liability claims or other litigation matters. Some plaintiffs have received substantial damage awards in some jurisdictions against pharmaceutical and/or medical device companies based upon claims for injuries allegedly caused by the use of their products. Any failure to effectively identify, analyze, report and protect adverse event data, and/or fully comply with relevant laws, rules and regulations around adverse event reporting could expose the Company to penalties, fines and reputational damage. In addition, in the age of social media, plaintiffs' attorneys have a wide variety of tools to advertise their services and solicit new clients for litigation, including using judgments obtained in litigation against other pharmaceutical companies as an advertising tool. For these or other reasons, any significant product liability or mass tort litigation in which we are a defendant could have a larger number of plaintiffs than such actions have seen historically and we could also see an increase in number of cases filed against us because of the increasing use of widespread and media-varied advertising. Furthermore, a ruling against other pharmaceutical companies in product liability or mass tort litigation in which we are not a defendant could have a negative impact on pending litigation where we are a defendant. In addition, it may be necessary for us to voluntarily or mandatorily recall or withdraw products that do not meet approved specifications or which subsequent data demonstrate may be unsafe or ineffective or misused. Any such recall or withdrawal could result in adverse publicity, costs connected to the recall and loss of revenue. Adverse publicity could also result in an increased number of additional product liability claims, whether or not these claims have a basis in scientific fact. See the risk factor "Public concern around the abuse of opioids, including law enforcement concerns over diversion and marketing of opioids, and regulatory efforts to combat abuse, could result in costs to our business" for more information. If we are found liable on a product liability claim or series of claims, including those described below, or in connection with other litigation matters, including those related to sales, marketing or pricing practices, government investigations or product recalls, or if we incur significant expenses in defense thereof, defaults could occur and be declared under our debt agreements, we could suffer substantial costs, reputational damage and/or restrictions on our product use, and we could incur losses, any of which could materially and adversely impact our business, financial condition, results of operations and cash flows and/or the price of our ordinary shares.

Our pharmaceutical and medical device products may cause, or may appear to cause, serious adverse side effects or potentially dangerous drug interactions if misused, improperly prescribed or subject to faulty surgical technique. For example, we and/or certain of our subsidiaries have been named as defendants in multiple lawsuits in various federal and state courts alleging personal injury resulting from use of transvaginal surgical mesh products designed to treat pelvic organ prolapse and stress urinary incontinence. For more information regarding this litigation, see Note 14. Commitments and Contingencies of the Condensed Consolidated Financial Statements included in Part I, Item 1.

We may be unable to obtain or maintain product liability insurance in the future on acceptable terms or with adequate coverage against potential liabilities or other losses such as the cost of a recall if any claim is brought against us, regardless of the success or failure of the claim. For example, we generally no longer have product liability insurance to cover the claims in connection with the mesh-related litigation described above. Additionally, we may be limited by the surviving insurance policies of our acquired subsidiaries, which may not be adequate to cover against potential liabilities or other losses. The failure to generate sufficient cash flow or to obtain other financing could affect our ability to pay the amounts due under those liabilities not covered by insurance. See Note 14. Commitments and Contingencies of the Condensed Consolidated Financial Statements included in Part I, Item 1 for further discussion of our product liability claims.

If generic manufacturers use litigation and regulatory means to obtain approval for generic versions of our branded drugs, our sales may suffer.

Under the Hatch-Waxman Act, the U.S. Food and Drug Administration (FDA) can approve an Abbreviated New Drug Application (ANDA) for a generic bioequivalent version of a previously approved drug, without requiring the ANDA applicant to undertake the full clinical testing necessary to obtain approval to market a new drug. In place of such clinical studies, an ANDA applicant usually needs only to submit data demonstrating that its generic product is bioequivalent to the branded product.

Various generic manufacturers have filed ANDAs seeking FDA approval for generic versions of certain of our key pharmaceutical products, including but not limited to LIDODERM®, VASOSTRICT® and AVEED®. In connection with such filings, these manufacturers have challenged the validity and/or enforceability of one or more of the underlying patents protecting our products. In the case of LIDODERM®, we no longer have patent protection in the markets where we sell these products. Our revenues from LIDODERM® have been negatively affected by Actavis's September 2013 launch and Mylan's August 2015 launch of their lidocaine patch 5%, generic versions of LIDODERM®, and we anticipate that these revenues could decrease further should one or more additional generic versions launch. We also believe it is likely that generic manufacturers may file ANDAs in the future seeking FDA approval or may use other means to seek FDA approval for generic versions of other of our key pharmaceutical products.

With respect to AVEED®, VASOSTRICT® and other branded pharmaceutical products, it has been and continues to be our practice to vigorously defend and pursue all available legal and regulatory avenues in defense of the intellectual property rights protecting our products. Despite our efforts to defend our products, litigation is inherently uncertain, and we cannot predict the timing or outcome of our efforts. If we are not successful in defending our intellectual property rights or opt to settle, or if a product's marketing exclusivity rights expire or become otherwise unenforceable, our competitors could ultimately launch generic versions of our products, which would likely cause sales and revenues of the affected products to decline rapidly and materially, could require us to write off a portion or all of the intangible assets associated with the affected product and could have a material adverse effect on our business, results of operations, financial condition and cash flows as well as our share price. In the case of VASOSTRICT®, PSP and PPI received a notice letter from Eagle Pharmaceuticals, Inc. (Eagle) in April 2018 advising of the filing by such company of an ANDA for a generic version of VASOSTRICT® (vasopressin IV solution (infusion)). The Paragraph IV Notice refers to patents the Company has listed in the Orange Book covering either vasopressin-containing pharmaceutical compositions or methods of using a vasopressin-containing dosage form to increase blood pressure in humans. In May 2018, PPI, PSP and EPIC filed a lawsuit against Eagle in the United States District Court for the District of Delaware within the 45-day deadline to invoke a 30-month stay of FDA approval pursuant to the Hatch-Waxman legislative scheme. We intend to vigorously defend VASOSTRICT®'s intellectual property rights and to pursue all available legal, business and regulatory avenues in defense of VASOSTRICT®, including enforcement of the product's intellectual property rights. However, there can be no assurance that our defense will be successful. If a generic version of VASOSTRICT® were introduced to the market before 2020, our revenues from VASOSTRICT® would decrease significantly and, depending on the timing of such introduction and its effect on VASOSTRICT® pricing, could have a material adverse effect on our business, results of operations, financial condition and cash flows as well as our share price.

For a description of the material related legal proceedings, see Note 14. Commitments and Contingencies of the Condensed Consolidated Financial Statements included in Part I, Item 1. As a result, there are currently ongoing legal proceedings brought by us and/or our subsidiaries, and in certain cases our third party partners, against manufacturers seeking FDA approval for generic versions of our products.

Our ability to protect and maintain our proprietary and licensed third party technology, which is vital to our business, is uncertain.

Our success, competitive position and future income will depend in part on our ability to obtain and protect patent rights relating to our current and future technologies, processes and products. Our policy is to seek patent protection for technologies, processes and products we own and to enforce the intellectual property rights we own and license. The patent applications we submit and have submitted may not result in patents being issued. If an invention qualifies as a joint invention, the joint inventor may have intellectual property rights in the invention, which it might not protect. A third party may infringe upon, design around or develop uses not covered by any patent issued or licensed to us and our patents may not otherwise be commercially viable. In this regard, the patent position of pharmaceutical compounds and compositions is particularly uncertain. Even issued patents may later be modified or revoked by the PTO, by analogous foreign offices or in legal proceedings. Laws relating to such rights may in the future also be changed or withdrawn. Upon the expiration or loss of necessary intellectual property protection for a product, others may manufacture and distribute such patented product, which will result in the loss of a significant portion of our sales of that product.

In addition, our success, particularly in our branded businesses, depends in part on the ability of our partners and suppliers to obtain, maintain and enforce patents, and protect trademarks, trade secrets, know-how and other intellectual property and proprietary information. Our ability to commercialize any branded product successfully will largely depend upon our and/or our partners' or suppliers' ability to obtain and maintain patents and trademarks of sufficient scope to lawfully prevent third-parties from developing and/or marketing infringing products.

The degree of protection any patents will afford is uncertain, including whether the protection obtained will be of sufficient breadth and degree to protect our commercial interests in all the countries where we conduct business. The issuance of a patent is not conclusive as to its claim scope, validity or enforceability. These patent rights may be challenged, revoked, invalidated, infringed or circumvented by third parties. The patent positions of pharmaceutical companies, including us, are generally uncertain and involve complex legal and factual questions. There is no assurance that any of our patent claims in our pending non-provisional and provisional patent applications relating to our technologies, processes or products will issue or if issued, that any of our existing and future patent claims will be held valid and enforceable against third-party infringement or that our products will not infringe any third-party patent or intellectual property. Moreover, any patent claims relating to our technologies, processes and products may not be sufficiently broad to protect our technologies, processes and products. In addition, issued patent claims may be challenged, potentially invalidated or potentially circumvented. Our patent claims may not afford us protection against competitors with similar technology or permit the commercialization of our products without infringing third-party patents or other intellectual property rights. It is possible that we could incur significant costs and management distraction if we are required to initiate litigation against others to protect or enforce our intellectual property rights. Such patent disputes may be lengthy and a potential violator of our patents may bring a potentially infringing product to market during the dispute, subjecting us to competition and damages due to infringement of the competitor product. No assurance can be given that if challenged, our patents would be declared by the PTO, comparable foreign patent offices or a court to be valid or enforceable or that even if found valid and enforceable, a competitor’s technology or product would be found by a court to infringe our patents.

Furthermore, our products may infringe on the patents or other intellectual property rights held by third parties. It is also possible that third parties will obtain patent or other proprietary rights that might be necessary or useful for the development, manufacture or sale of our products. If we infringe on the intellectual property rights of others, we could lose our right to develop, manufacture or sell products or we could be required to pay monetary damages or royalties to license proprietary rights from third parties and we may not be able to obtain such licenses on commercially reasonable terms or at all. An adverse determination in a judicial or administrative proceeding or a failure to obtain necessary licenses could prevent us from manufacturing or selling our products.

The Company also relies on trade secrets and other unpatented proprietary information, which it generally seeks to protect by confidentiality and nondisclosure agreements with its employees, consultants, advisors and partners. These agreements may not effectively prevent disclosure of confidential information and may not provide the Company with an adequate remedy in the event of unauthorized disclosure. For example, in August 2017, we filed a complaint against QuVa Pharma, Inc. and certain individual defendants in the U.S. District Court for the District of New Jersey alleging misappropriation in violation of the federal Defend Trade Secrets Act, New Jersey’s Trade Secrets Act and New Jersey common law, as well as unfair competition, breach of contract, breach of fiduciary duty, breach of the duty of loyalty, tortious interference with contractual relations and breach of the duty of confidence in connection with VASOSTRICT®, a vasopressin-based cardiopulmonary drug. For more information regarding this litigation, see Note 14. Commitments and Contingencies of the Condensed Consolidated Financial Statements included in Part I, Item 1. In addition, we may also not be able to discover or determine the extent of any unauthorized use of our proprietary rights, and we may not be able to prevent third parties from misappropriating or infringing upon our proprietary rights. In addition, if the Company’s employees, scientific consultants or partners develop inventions or processes that may be applicable to the Company’s products under development, such inventions and processes will not necessarily become the Company’s property, but may remain the property of those persons or their employers.

If we are unable to adequately protect our technology, trade secrets or proprietary know-how, or enforce our intellectual property rights, our results of operations, financial condition and cash flows could be materially adversely affected.

The availability of third party reimbursement for our products is uncertain, and thus we may find it difficult to maintain current price levels. Additionally, the market may not accept those products for which third party reimbursement is not adequately provided.

Our ability to commercialize our products depends, in part, on the extent to which reimbursement for the costs of these products is available from government healthcare programs, such as Medicaid and Medicare, private health insurers and others. We cannot be certain that, over time, third party reimbursements for our products will be adequate for us to maintain price levels sufficient for realization of an appropriate return on our investment. Government payers, private insurers and other third party payers are increasingly attempting to contain healthcare costs by: (i) limiting both coverage and the level of reimbursement (including adjusting co-pays) for products approved for marketing by the FDA, (ii) refusing, in some cases, to provide any coverage for uses of approved products for indications for which the FDA has not granted marketing approval and (iii) requiring or encouraging, through more favorable reimbursement levels or otherwise, the substitution of generic alternatives to branded products. The Trump Administration also has been targeting drug prices in ways that could affect reimbursement for our products. For example, beginning in January 2019, Medicare Advantage Plans will be permitted to apply “step therapy” to products covered under Part B, which could impact our ability to negotiate for favorable product access in this sector. Additionally, in October 2018, President Trump announced a new initiative to contain drug costs. In particular, the Centers for Medicare and Medicaid Services (CMS) issued an Advance Notice of Proposed Rulemaking for the Medicare Program that would reduce Part B drug spending and reimbursement in part based on the prices that manufacturers charge to customers in foreign countries. This proposal targets physician-administered drugs, and it is therefore possible that any final rule could adversely affect reimbursement for certain products that we sell, and we cannot anticipate the adverse impact on our business.

We are dependent on third parties to supply all raw materials used in our products and to provide services for certain core aspects of our business. Any interruption or failure by these suppliers, distributors and collaboration partners to meet their obligations pursuant to various agreements with us could have a material adverse effect on our business, results of operations, financial condition and cash flows.

We rely on third parties to supply all raw materials used in our products. In addition, we rely on third party suppliers, distributors and collaboration partners to provide services for certain core aspects of our business, including manufacturing, warehousing, distribution, customer service support, medical affairs services, clinical studies, sales and other technical and financial services. All third party suppliers and contractors are subject to FDA, and very often DEA, requirements. Our business and financial viability are dependent on the continued supply of goods and services by these third party suppliers, the regulatory compliance of these third parties and on the strength, validity and terms of our various contracts with these third party manufacturers, distributors and collaboration partners. Any interruption or failure by our suppliers, distributors and collaboration partners to meet their obligations pursuant to various agreements with us on schedule or in accordance with our expectations, which could be the result of one or many factors outside of our control, could delay or prevent the development, approval, manufacture or commercialization of our products, result in non-compliance with applicable laws and regulations, disrupt our operations or cause reputational harm to our company, any or all of which could have a material adverse effect on our business, financial condition, results of operations and cash flows. We may also be unsuccessful in resolving any underlying issues with such suppliers, distributors and partners or replacing them within a reasonable time and on commercially reasonable terms.

All APIs imported into the European Union (EU) must be certified as complying with the good manufacturing practice standards established by the EU, as stipulated by the International Conference for Harmonization. These regulations place the certification requirement on the regulatory bodies of the exporting countries. Accordingly, the national regulatory authorities of each exporting country must: (i) ensure that all manufacturing plants within their borders that export API into the EU comply with EU manufacturing standards and (ii) for each API exported, present a written document confirming that the exporting plant conforms to EU manufacturing standards. The imposition of this responsibility on the governments of the nations exporting API may cause a shortage of API necessary to manufacture our products, as certain governments may not be willing or able to comply with the regulation in a timely fashion, or at all. A shortage in API may cause us to cease manufacturing of certain products or to incur costs and delays to qualify other suppliers to substitute for those API manufacturers unable to export. This could adversely affect the Company and could have a material adverse effect on our business, results of operations, financial condition and cash flow.

We are dependent upon third parties to provide us with various estimates as a basis for our financial reporting. While we undertake certain procedures to review the reasonableness of this information, we cannot obtain absolute assurance over the accounting methods and controls over the information provided to us by third parties. As a result, we are at risk of them providing us with erroneous data which could have a material adverse impact on our business and or reporting.

If our manufacturing facilities are unable to manufacture our products or the manufacturing process is interrupted due to failure to comply with regulations or for other reasons, it could have a material adverse impact on our business.

If any of our or our third party manufacturing facilities fail to comply with regulatory requirements or encounter other manufacturing difficulties, it could adversely affect our ability to supply products. All facilities and manufacturing processes used for the manufacture of pharmaceutical products are subject to inspection by regulatory agencies at any time and must be operated in conformity with cGMP and, in the case of controlled substances, DEA regulations. Compliance with the FDA's cGMP and DEA requirements applies to both drug products seeking regulatory approval and to approved drug products. In complying with cGMP requirements, pharmaceutical manufacturing facilities must continually expend significant time, money and effort in production, record-keeping and quality assurance and control so that their products meet applicable specifications and other requirements for product safety, efficacy and quality. Failure to comply with applicable legal requirements subjects our or our third party manufacturing facilities to possible legal or regulatory action, including shutdown, which may adversely affect our ability to supply the product. Additionally, our or our third party manufacturing facilities may face other significant disruptions due to labor strikes, failure to reach acceptable agreement with labor and unions, infringement of intellectual property rights, vandalism, natural disaster, storm or other environmental damage, civil or political unrest, export or import restrictions or other events. Were we not able to manufacture products at our or our third party manufacturing facilities because of regulatory, business or any other reasons, the manufacture and marketing of these products would be interrupted. This could have a material adverse impact on our business, results of operation, financial condition, cash flows and competitive position.

For example, our Horsham, Pennsylvania facility and the facilities of the manufacturer that has been qualified as an alternate manufacturer for CCH, which we sell under the trademark XIAFLEX® (such manufacturer, the Alternate Manufacturer and such facility, the Alternate Facility), are subject to such regulatory requirements and oversight. If we or the Alternate Manufacturer fail to comply with cGMP requirements, we may not be permitted to sell our products or may be limited in the jurisdictions in which we are permitted to sell them. Further, if an inspection by regulatory authorities indicates that there are deficiencies, including non-compliance with regulatory requirements, we could be required to take remedial actions, stop production or close our Horsham facility or the Alternate Facility, which would disrupt the manufacturing processes, limit the supply of CCH and delay clinical trials and subsequent licensure and/or limit the sale of commercial supplies. In addition, future noncompliance with any applicable regulatory requirements may result in refusal by regulatory authorities to allow use of CCH in clinical trials, refusal of the government to allow distribution of CCH within the U.S. or other jurisdictions, criminal prosecution, fines, recall or seizure of products, total or partial suspension of production, prohibitions or limitations on the commercial sale of products, refusal to allow the entering into of federal and state supply contracts and follow-on civil litigation.

We purchase certain API and other materials used in our manufacturing operations from foreign and domestic suppliers. The price of API and other materials is subject to volatility. There is no guarantee that we will always have timely, sufficient or affordable access to critical raw materials or supplies from third parties. An increase in the price, or an interruption in the supply, of any API or raw material, could cause our business, financial condition, results of operations, cash flows and/or ordinary share price to be materially adversely affected.

We are subject to health information privacy and data protection laws that include penalties for noncompliance.

We are subject to a number of privacy and data protection laws and regulations globally. The legislative and regulatory landscape for privacy and data security continues to evolve. There has been increased attention to privacy and data security issues in both developed and emerging markets with the potential to affect directly our business. This includes federal and state laws and regulations in the U.S. as well as in Europe and other markets. There has also been increased enforcement activity in the U.S. particularly related to data security breaches. A violation of these laws or regulations by us or our third party vendors could subject us to penalties, fines, liability and/or possible exclusion from Medicare or Medicaid. Such sanctions could materially and adversely affect our business, results of operations, financial condition and cash flows.

Our international operations could expose us to various risks, including risks related to fluctuations in foreign currency exchange rates.

In 2017, 7% of our total revenues were from customers outside the U.S. Some of these sales were to governmental entities and other organizations with extended payment terms. A number of factors, including differing economic conditions, changes in political climate, differing tax regimes, changes in product pricing, changes in diplomatic and trade relationships and political or economic instability in the countries where we do business, could affect payment and credit terms and our ability to collect foreign receivables. A substantial slowdown of the global economy, or major national economies, could negatively affect growth in the markets in which we operate. Such a slowdown could result in national governments making significant cuts to their public spending, including national healthcare budgets, or reducing the level of reimbursement they are willing and able to provide to us for our products and, as a result, adversely affect our revenues, financial condition or results of operations. We have little influence over these factors and changes could have a material adverse impact on our business. In particular, the risk of a debt default by one or more European countries and related European or national financial restructuring efforts may cause volatility in the value of the euro. In addition, foreign sales are influenced by fluctuations in currency exchange rates, primarily the Canadian dollar, euro and British pound.

The effective rate of taxation upon our results of operations is dependent on multi-national tax considerations.

We earn a portion of our income outside the U.S. That portion of our earnings is taxed at the more favorable rates applicable to the activities undertaken by our subsidiaries outside of the U.S. Our effective income tax rate in the future could be adversely affected by a number of factors, including changes in the mix of earnings in countries with differing statutory tax rates, changes in the valuation of deferred tax assets and liabilities, changes in tax laws, the outcome of income tax audits and the repatriation of earnings from our subsidiaries for which we have not provided for taxes. Cash repatriations are subject to restrictions in certain jurisdictions and may be subject to withholding and other taxes. We are subject to the examination of our tax returns and tax arrangements by the IRS and other tax and governmental authorities, such as described in the risk factor "We may not be able to successfully maintain our low tax rates or other tax positions, which could adversely affect our businesses and financial condition, results of operations and growth prospects." We regularly assess all of these matters to determine the adequacy of our tax provisions, which are subject to significant discretion. Although we believe our tax provisions are adequate, the final determination of tax audits and any related disputes could be materially different from our historical income tax provisions and accruals. The results of audits and disputes could have a material adverse effect on our financial statements for the period or periods for which the applicable final determinations are made.

Future changes in tax laws and rates, including further administrative or regulatory guidance related to the TCJA, could also affect recorded deferred tax assets and liabilities. Our estimate of the impact of the TCJA has been recorded on a provisional basis based on currently available information and interpretations of the TCJA. Any adjustments to this estimate will be recorded as an income tax expense or benefit in the period the adjustment is determined. Additionally, EU Member States that we operate in and/or have subsidiaries in have begun promulgating draft tax legislation in response to initiatives by the Economic and Financial Affairs Council of the EU. We are currently evaluating the potential impact of such legislation, which could have a material impact on the Company.

We may not be able to successfully maintain our low tax rates or other tax positions, which could adversely affect our businesses and financial condition, results of operations and growth prospects.

We are incorporated in Ireland and also maintain subsidiaries in, amongst other jurisdictions, the United States, Canada, India, Bermuda, the United Kingdom and Luxembourg. The IRS and other taxing authorities continue to challenge our tax positions. In addition, the IRS presently is examining certain of our subsidiaries' United States income tax returns for fiscal years ending between December 31, 2011 and December 31, 2015 and, in connection with those examinations, is reviewing our tax positions related to, among other things, certain intercompany arrangements, including the level of profit earned by our United States subsidiaries pursuant to such arrangements, and a worthless stock deduction directly attributable to product liability losses. The IRS may examine our tax returns for other fiscal years. Such examinations may lead to proposed or actual adjustments to our taxes that may be material, individually or in the aggregate.

Responding to or defending any challenge or proposed adjustment to our tax positions is expensive, consumes time and other resources and diverts management's attention. We cannot predict whether taxing authorities will conduct an audit challenging any of our other tax positions, the cost involved in responding to and defending any such audit and resulting litigation, or the outcome. If we are unsuccessful in any of these matters, we may be required to pay taxes for prior periods, interest, fines or penalties, and may be obligated to pay increased taxes in the future or repay certain tax refunds, any of which could require us to reduce our operating expenses, decrease efforts in support of our products or seek to raise additional funds, all of which could have a material adverse effect on our business, financial position, results of operations and growth prospects.

Our failure to comply with various laws protecting the confidentiality of certain patient health information could result in penalties and reputational damage.

Certain countries in which we operate have, or are developing, laws protecting the confidentiality of individually identifiable personal information, including patient health information. EU member states and other jurisdictions have adopted data protection laws and regulations applicable to such information, which impose significant compliance obligations.

For example, the EU General Data Protection Regulation (GDPR), which replaced the pre-existing EU Data Protection Directive and became enforceable as of May 25, 2018, imposes strict restrictions on our authority to collect, analyze and transfer personal data, including health data from clinical trials and adverse event reporting. The GDPR also grants individuals whose personal data (which is very broadly defined) is collected or otherwise processed the right to access the data, request its deletion and control its use and disclosure. The GDPR also requires notification of a breach in the security of such data to be provided within 72 hours of discovering the breach. Although the GDPR itself is self-executing across all EU member states, data protection authorities from different EU member states may interpret and apply the regulation somewhat differently, which adds to the complexity of processing personal data in the EU. To date, there has been scant interpretation of the regulation by any of the different data protection authorities and little time for enforcement, which makes predicting future enforcement very difficult. That uncertainty contributes to liability exposure risk.

As did the pre-existing Data Protection Directive, the GDPR prohibits the transfer of personal data to countries outside of the EU that are not considered by the European Commission to provide an adequate level of data protection, and transfers of personal data to such countries may be made only in certain circumstances, such as where the transfer is necessary for important reasons of public interest or the individual to whom the personal data relates has given his or her explicit consent to the transfer after being informed of the risks involved. We have policies and practices that we believe make us compliant with applicable privacy regulations. Nevertheless, any failure to comply with the rules arising from the EU GDPR or privacy laws in other countries in which we operate, could lead to government enforcement actions and significant sanctions or penalties against us, adversely impact our results of operations and subject us to negative publicity. Such liabilities could materially affect our operations.

Our business and financial condition may be adversely affected by legislation.

In April 2018, New York enacted a statute called the Opioid Stewardship Act (the Stewardship Act), which, among other things, requires certain sellers and distributors of certain opioids in the state of New York (the Contributing Parties) to make payments to a newly created Opioid Stewardship Fund (the Fund). The Contributing Parties will be required to pay a total of up to $100 million annually into the Fund, with each Contributing Party's share based on the total amount of morphine milligram equivalents of certain opioids sold or distributed by the Contributing Party in the state of New York during the preceding calendar year, subject to potential adjustments by the New York State Department of Health. Failure of a Contributing Party to make required reports or pay its ratable share, or a Contributing Party passing on the cost of its ratable share to a purchaser, may subject the Contributing Party to penalties. While the effect of this legislation remains uncertain, it is likely that we may be deemed to be a Contributing Party and even if we are not considered to be a Contributing Party, or such a determination is never made, other entities may attempt to seek reimbursement from Endo for payments made related to products manufactured by Endo and distributed in New York. Furthermore, the application of the Stewardship Act may require additional regulatory guidance, which could be substantially delayed, increasing the uncertainty as to the ultimate effect of the Stewardship Act on us. If we are ultimately deemed to be a Contributing Party, compliance with the requirements of the Stewardship Act, or similar requirements that could be enacted by other jurisdictions, could have an adverse effect on our business, results of operations, financial condition and cash flows.

Additionally, in October 2018, the United States Congress enacted the Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment for Patients and Communities Act (H.R. 6). Intended to achieve sweeping reform to combat the opioid epidemic, H.R. 6, among other provisions, amends related laws administered by the FDA, Drug Enforcement Administration (DEA) and CMS. Among other things, the law: amends requirements related to the FDA's authority to include packaging requirements in risk evaluation and mitigation strategy (REMS) requirements; increases civil and criminal penalties for drug manufacturers and distributors for failing to maintain effective controls against diversion of opioids or for failing to report suspicious opioid orders; requires the DEA to estimate the amount of opioid diversion when establishing manufacturing and procurement quotas; and authorizes the Department of Health and Human Services to implement a demonstration program which would award grants to hospitals and emergency departments to develop, implement, enhance or study alternative pain management protocols and treatments that limit the use and prescription of opioids in emergency departments. While the effect of this legislation is still uncertain, it is likely that our products will be affected by enforcement of the legislation, including through related policies and implementing regulations. It is possible that these changes in law could have an adverse effect on our business, results of operations, financial condition and cash flow.

Also in October 2018, the Canadian province of British Columbia enacted a statute called the Opioid Damages and Health Care Costs Recovery Act, which allows the British Columbia government to file a direct action against opioid manufacturers and wholesalers to recover the health care costs it has incurred, and will incur, resulting from an "opioid-related wrong." The statute defines "opioid-related wrong" to include any breach of a common law, equitable, or statutory duty or obligation owed to persons in British Columbia who have been or might be exposed to an opioid product. The statute, among other effects, erases limitation periods, reverses certain burdens of proof as to causation, allows the use of population-based evidence and restricts discovery of some relevant documents. It is possible that this statute, or similar statutes enacted by other jurisdictions, and resultant litigation, could have an adverse effect on our business, results of operations, financial condition and cash flow.

In Canada, the prices of patented drug products are subject to regulation by the Patented Medicine Prices Review Board (PMPRB). Under the Canadian Patent Act and Patented Medicines Regulations, patentees of inventions that pertain to drug products sold in Canada are periodically required to file price and sales information about their patented drug products with the PMPRB. The PMPRB reviews this information on an ongoing basis to ensure that the prices charged by pharmaceutical companies for patented drugs are not excessive and comply with the pricing guidelines established by the PMPRB. There is risk that we could fail to comply with the PMPRB's current guidelines, such as upon the launch of a new product in Canada for which the PMPRB has not yet assessed pricing, or that the guidelines could change, such that the current price of our drug products will be considered excessive under the updated guidelines. The Canadian government has published proposed amendments to the Patented Medicines Regulations and, if these amendments are passed and come into force, the PMPRB guidelines will be updated to account for new price regulatory factors. Failure by us to comply with the current or future guidelines could ultimately result in us reducing the prices of the drug products we sell in Canada and/or making a payment to the Canadian government to offset revenues deemed by the PMPRB to be excessive, which could ultimately reduce the revenues and cash flows of our International Pharmaceuticals segment and could have an adverse effect on our business, results of operations, financial condition, cash flow and reputation.

Public concern around the abuse of opioids, including law enforcement concerns over diversion and marketing of opioids, and regulatory efforts to combat abuse, could result in costs to our business.

Media stories regarding prescription drug abuse and the diversion of opioids and other controlled substances are commonplace. Aggressive enforcement and unfavorable publicity regarding, for example, the use or misuse of opioid drugs; the limitations of abuse-deterrent formulations; the ability of drug abusers to discover previously unknown ways to abuse our products; public inquiries and investigations into prescription drug abuse; litigation; or regulatory activity regarding sales, marketing, distribution or storage of opioids could have a material adverse effect on our reputation and impact on the results of litigation.

Opioid manufacturers have been the subject of significant current civil and criminal investigatory and enforcement action. In addition, numerous governmental and private persons and entities are pursuing civil litigation against opioid manufacturers and distributors, invoking current laws and regulations relating to opioids and/or other prescription medicines, as well as novel uses of other laws that seek to hold accountable opioid manufacturers for opioid misuse. See Note 14. Commitments and Contingencies of the Condensed Consolidated Financial Statements included in Part I, Item 1 for more information.

Regulatory actions at the federal, state and local level may seek to limit or restrict the manufacturing, distribution or sale of opioids, both directly and indirectly, and/or to impose novel policy or regulatory mechanisms regarding the manufacturing, distribution or sales of opioids. For example, in April 2018, New York enacted the Stewardship Act. See the risk factor “Our business and financial condition may be adversely affected by legislation” for more information. Many state legislatures are considering various bills intended to reduce opioid abuse such as by, for example, establishing prescription drug monitoring programs and mandating prescriber education.

Finally, various government entities, including Congress, state legislatures or other policy-making bodies may hold hearings, conduct investigations and/or issue reports calling attention to the opioid crisis, and may mention or criticize the role of manufacturers, including us, in the opioid crisis. Similarly, press organizations have and likely will continue to report on these issues, and such reporting may result in adverse publicity for manufacturers, including us.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

There were no purchases or sales of equity securities by the Company during the three months ended September 30, 2018.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits

Number	Description	Incorporated by Reference from: File Number	Filing Type	Filing Date
10.1	Form of Stock Option Agreement under the Endo International plc Amended and Restated 2015 Stock Incentive Plan	Not applicable; filed herewith		
10.2	Form of Stock Award Agreement under the Endo International plc Amended and Restated 2015 Stock Incentive Plan	Not applicable; filed herewith		
10.3	Form of Performance Award Agreement under the Endo International plc Amended and Restated 2015 Stock Incentive Plan	Not applicable; filed herewith		
31.1	Certification of the President and Chief Executive Officer of Endo pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	Not applicable; filed herewith		
31.2	Certification of the Chief Financial Officer of Endo pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	Not applicable; filed herewith		
32.1	Certification of the President and Chief Executive Officer of Endo pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	Not applicable; furnished herewith		
32.2	Certification of the Chief Financial Officer of Endo pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	Not applicable; furnished herewith		
101	The following materials from Endo International plc's Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, formatted in XBRL (eXtensible Business Reporting Language): (i) the Condensed Consolidated Balance Sheets, (ii) the Condensed Consolidated Statements of Operations, (iii) the Condensed Consolidated Statements of Comprehensive Loss, (iv) the Condensed Consolidated Statements of Cash Flows and (v) the Notes to Condensed Consolidated Financial Statements	Not applicable; submitted herewith		

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

ENDO INTERNATIONAL PLC

(Registrant)

/s/ PAUL V. CAMPANELLI

Name: **Paul V. Campanelli**

Title: **President and Chief Executive Officer**
(Principal Executive Officer)

/s/ BLAISE COLEMAN

Name: **Blaise Coleman**

Title: **Executive Vice President, Chief Financial Officer**
(Principal Financial Officer)

Date: November 8, 2018

Grant No.

ENDO INTERNATIONAL PLC
STOCK OPTION AGREEMENT
UNDER THE AMENDED AND RESTATED 2015 STOCK INCENTIVE PLAN

This Stock Option Agreement (this "Option Agreement") is made and entered into as of the date of grant set forth below (the "Date of Grant") by and between Endo International plc, an Irish public limited company (the "Company"), and the optionee named below (the "Participant"). Capitalized terms not defined herein shall have the meanings ascribed to them in the Company's Amended and Restated 2015 Stock Incentive Plan (the "Plan"). Where the context permits, references to the Company shall include any successor to the Company.

Name of Participant:	
Number of Shares Subject to Option:	
Exercise Price Per Share:	
Date of Grant:	
Expiration Date:	The 10th anniversary of the Date of Grant
Vesting Dates:	Option vests ratably over the first, second, third [and fourth] anniversaries of the Date of Grant
Classification of Option:	Non-Qualified Stock Option

1. Number of Shares. The Company hereby grants to the Participant an option (the "Option") to purchase the total number of shares of Company Stock set forth above as Shares Subject to Option (the "Option Shares") at the Exercise Price Per Share set forth above (the "Exercise Price"), subject to all of the terms and conditions of this Option Agreement and the Plan.

2. Incorporation of Plan. The Plan is hereby incorporated by reference and made a part hereof, and the Option and this Option Agreement shall be subject to all terms and conditions of the Plan. In the event of any conflict between the provisions of this Option Agreement and the provisions of the Plan, the provisions of the Plan shall govern, except as expressly provided by Paragraph 7 of this Option Agreement.

3. Option Term. The term of the Option and of this Option Agreement (the "Option Term") shall commence on the Date of Grant set forth above and, unless previously terminated

pursuant to Paragraph 4 of this Option Agreement, shall terminate upon the Expiration Date set forth above. As of the Expiration Date, all rights of the Participant hereunder shall terminate.

4. Termination of Service.

(a) Termination of Service for Cause. Upon the Participant's termination of service with the Company and its Subsidiaries by the Company or its Subsidiary for Cause, the portion of outstanding Options that are exercisable as of the date of such termination of service shall remain exercisable for thirty (30) days from and including the date of termination of service (and shall thereafter terminate). Any portion of outstanding Options that are not exercisable as of the date of such termination of service shall terminate upon the date of termination of service.

(b) Termination of Service on Account of Death. Upon the Participant's termination of service with the Company and its Subsidiaries on account of death, all of the Participant's unvested Options shall immediately vest and become exercisable. The Options shall remain exercisable for one (1) year from and including the date of the Participant's death (and shall thereafter terminate).

(c) Termination of Service on Account of Disability or Voluntary Retirement with Consent of Company. If the Participant voluntarily Retires with the consent of the Company or if the Participant's service with the Company and its Subsidiaries terminates due to Disability, the Participant's unvested Options as of the date of such termination shall continue to vest in accordance with the original vesting schedule set forth above. The Options shall remain exercisable for a period of one (1) year from and including the later to occur of (i) the date such entire Option becomes exercisable in accordance with the vesting schedule and (ii) the date of termination of service (and shall thereafter terminate).

(d) Termination of Service by the Company without Cause or by the Participant for Good Reason. Upon termination of the Participant's service with the Company and its Subsidiaries by the Company or its Subsidiaries without Cause, the portion of outstanding Options that are exercisable as of the date of such termination of service shall remain exercisable for one (1) year from and including the date of termination of service (and shall thereafter terminate). Any portion of outstanding Options that are not exercisable as of the date of such termination of service shall terminate upon the date of termination of service. If a Participant is a party to an employment agreement with the Company or a Subsidiary and such employment agreement provides for benefits on a termination of employment for "Good Reason," (x) a termination of the Participant's employment for Good Reason shall

constitute a termination without Cause for purposes of Paragraphs 4 and 6 of this Option Agreement and (y) Good Reason will also include the Participant's termination of employment within ninety (90) days following the expiration of the employment term of the Participant's employment agreement under circumstances that would have constituted Good Reason had such termination occurred during the employment term.

(e) Termination of Service for any Other Reason. Upon the Participant's termination of service with the Company and its Subsidiaries for any reason other than the reasons enumerated in Subparagraphs (a) through (d) above, the portion of outstanding Options that are exercisable as of the date of such termination of service shall remain exercisable for ninety (90) days from and including the date of termination of service (and shall thereafter terminate). Any portion of outstanding Options that are not exercisable as of the date of such termination of service shall terminate upon the date of termination of services.

5. Vesting. Except as provided in Paragraph 4 above, the Option shall become exercisable with respect to the number of Option Shares specified on the Exercisability Dates set forth above. Once exercisable, the Option shall continue to be exercisable at any time or times prior to the Expiration Date, subject to the provisions hereof and of the Plan. No Option may be exercised after the Expiration Date.

6. Change in Control. In the event of a Change in Control:

(a) if the Option is assumed or substituted (within the meaning of the Plan) in connection with such Change in Control, and the Participant incurs a termination of service with the Company and its Subsidiaries by the Company or its Subsidiary without Cause during the 24-month period following such Change in Control, then the Option shall vest and become fully exercisable on the date of such termination of services and shall remain exercisable for one (1) year from and including the date of such termination of services (and shall thereafter terminate).

(b) if the Option is not assumed or substituted in connection with such Change in Control, then the Option shall immediately vest and become fully exercisable on the occurrence of the Change in Control.

7. Change in Control Definition. Notwithstanding anything to the contrary in the Plan, for purposes of this Option Agreement, "Change in Control" means and shall be deemed to have occurred upon the first of the following events to occur:

(a) Any “Person” (as defined below) is or becomes the “beneficial owner” (“Beneficial Owner”) within the meaning set forth in Rule 13d-3 under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), directly or indirectly, of securities of the Company (not including in the securities beneficially owned by such Person any securities acquired directly from the Company or its “Affiliates” (as defined in Rule 12b-2 promulgated under Section 12 of the Exchange Act)) representing 30% or more of the combined voting power of the Company’s then outstanding securities, excluding any Person who becomes such a Beneficial Owner in connection with a transaction described in clause (A) of Subparagraph (c) below; or

(b) The following individuals cease for any reason to constitute a majority of the number of directors then serving: individuals who, on the date hereof, constitute the Board of Directors and any new director (other than a director whose initial assumption of office is in connection with an actual or threatened election contest, including but not limited to a consent solicitation, relating to the election of directors of the Company) whose appointment or election by the Board of Directors or nomination for election by the Company’s shareholders was approved or recommended by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors on the date hereof or whose appointment, election or nomination for election was previously so approved or recommended; or

(c) There is consummated a merger or consolidation of the Company or any direct or indirect subsidiary of the Company with any other corporation or other entity, other than (A) a merger or consolidation which results in (i) the voting securities of the Company outstanding immediately prior to such merger or consolidation continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or any parent thereof), in combination with the ownership of any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any subsidiary of the Company, at least 60% of the combined voting power of the securities of the Company or such surviving entity or any parent thereof outstanding immediately after such merger or consolidation and (ii) the individuals who comprise the Board of Directors immediately prior thereto constituting immediately thereafter at least a majority of the board of directors of the Company, the entity surviving such merger or consolidation or, if the Company or the entity surviving such merger is then a subsidiary, the ultimate parent thereof, or (B) a merger or consolidation effected to implement a recapitalization of the Company (or similar transaction) in which no Person is or becomes the Beneficial Owner, directly or indirectly, of securities of

the Company (not including in the securities Beneficially Owned by such Person any securities acquired directly from the Company or its Affiliates) representing 30% or more of the combined voting power of the Company's then outstanding securities; or

(d) The shareholders of the Company approve a plan of complete liquidation or dissolution of the Company or there is consummated an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets (it being conclusively presumed that any sale or disposition is a sale or disposition by the Company of all or substantially all of its assets if the consummation of the sale or disposition is contingent upon approval by the Company's shareholders unless the Board of Directors expressly determines in writing that such approval is required solely by reason of any relationship between the Company and any other Person or an Affiliate of the Company and any other Person), other than a sale or disposition by the Company of all or substantially all of the Company's assets to an entity (A) at least 60% of the combined voting power of the voting securities of which are owned by shareholders of the Company in substantially the same proportions as their ownership of the Company immediately prior to such sale or disposition and (B) the majority of whose board of directors immediately following such sale or disposition consists of individuals who comprise the Board of Directors immediately prior thereto.

For purposes hereof, "Person" shall have the meaning given in Section 3(a)(9) of the Exchange Act, as modified and used in Sections 13(d) and 15(d) thereof, except that such term shall not include (i) the Company or any of its Subsidiaries, (ii) a trustee or other fiduciary holding securities under an employee benefit plan of the Company or any of its Affiliates, (iii) an underwriter temporarily holding securities pursuant to an offering of such securities, or (iv) a corporation owned, directly or indirectly, by the shareholders of the Company in substantially the same proportions as their ownership of stock of the Company.

Notwithstanding the foregoing, (i) a "Change in Control" shall not be deemed to have occurred by virtue of the consummation of any transaction or series of integrated transactions immediately following which the record holders of Company Stock immediately prior to such transaction or series of transactions continue to have substantially the same proportionate ownership in an entity which owns all or substantially all of the assets of the Company immediately following such transaction or series of transactions and (ii) to the extent required to avoid the imposition of taxes or penalties under Section 409A of the Code with respect to any Award that constitutes a deferral of compensation subject to Section

409A of the Code, no such Award shall become payable as a result of the occurrence of a Change in Control unless such Change in Control also constitutes a change in the ownership or effective control of the Company or a change in ownership of a substantial portion of the assets of the Company under Section 409A of the Code.

For the avoidance of doubt, any one or more of the events described in subparagraphs (a) through (d) may be effected pursuant to (A) a takeover under Irish takeover rules; (B) a compromise or arrangement under Chapter 1 of Part 9 of the Companies Act 2014 of the Republic of Ireland or (C) Chapter 2 of Part 9 of the Companies Act 2014 of the Republic of Ireland.

8. Authority of the Committee. The Committee shall have full authority to interpret and construe the terms of the Plan and this Option Agreement. The determination of the Committee as to any such matter of interpretation or construction shall be final, binding and conclusive.

9. Governing Law. This Option Agreement shall be governed by, interpreted under, and construed and enforced in accordance with the internal laws, and not the laws pertaining to conflicts or choices of laws, of the State of Delaware applicable to agreements made and to be performed wholly within the State of Delaware.

10. Binding on Successors. The terms of this Option Agreement shall be binding upon the Participant and upon the Participant's heirs, executors, administrators, personal representatives, transferees, assignees and successors in interest, and upon the Company and its successors and assignees, subject to the terms of the Plan.

11. No Assignment. Notwithstanding anything to the contrary in this Option Agreement, neither this Option Agreement nor any rights granted herein shall be assignable by the Participant.

12. Necessary Acts. The Participant hereby agrees to perform all acts, and to execute and deliver any documents that may be reasonably necessary to carry out the provisions of this Option Agreement, including but not limited to all acts and documents related to compliance with federal and/or state securities and/or tax laws and applicable Irish law.

13. Entire Option Agreement. This Option Agreement and the Plan contain the entire agreement and understanding among the parties as to the subject matter hereof.

14. Headings. Headings are used solely for the convenience of the parties and shall not be deemed to be a limitation upon or descriptive of the contents of any such Paragraph.

15. Counterparts. This Option Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original and all of which together shall be deemed to be one and the same instrument.

16. Notices. All notices and other communications under this Option Agreement shall be in writing and shall be given by first class mail, certified or registered with return receipt requested, and shall be deemed to have been duly given three days after mailing to the respective parties named below:

If to Company:

Endo International plc
c/o Endo Health Solutions Inc.
1400 Atwater Drive
Malvern, PA 19355
Attention: Treasurer

If to the Participant:

At the address on file with the Company.

Either party hereto may change such party's address for notices by notice duly given pursuant hereto.

17. Amendment. No amendment or modification hereof shall be valid unless it shall be in writing and signed by all the parties hereto.

18. Acceptance. The Participant hereby acknowledges receipt of a copy of the Plan and this Option Agreement. The Participant has read and understands the terms and provisions thereof, and accepts the Option subject to all the terms and conditions of the Plan and this Option Agreement.

19. No Compensation for Loss of Rights. The Participant hereby acknowledges that under no circumstances will s/he, on ceasing to be an employee or director of the Company and its Subsidiaries, be entitled to any compensation for any loss of any right or benefit or prospective right or benefit under the Plan that s/he might otherwise have enjoyed whether such compensation is claimed by way of damages for wrongful dismissal or other breach of contract or by way of compensation for loss of office or otherwise howsoever.

20. Severability. All the terms and provisions of this Option Agreement are distinct and severable, and if any term or provision is held unenforceable, illegal or void in whole or in part by any court, regulatory authority or other competent authority it shall to that extent be

deemed not to form part of this Option Agreement, and the enforceability, legality and validity of the remainder of this Option Agreement will not be affected; if any invalid, unenforceable or illegal provision would be valid, enforceable or legal if some part of it were deleted, the provision shall apply with whatever modification is necessary to make it valid, enforceable and legal.

21. Data Protection. The Participant hereby acknowledges and consents to the Company and any Subsidiary sharing and exchanging his/her information held in order to administer and operate the Plan (including personal details, data relating to participation, salary, taxation and employment and sensitive personal data, e.g. data relating to physical or mental health, criminal conviction or the alleged commission of offences) (the "Information") and providing the Company and/or the Subsidiary's agents and/or third parties with the Information for the administration and operation of the Plan and the Participant further accepts that this may involve the Information being sent to a country outside the country in which the Participant provides services including to a country which may not have the same level of data protection laws as his/her home country. The Participant acknowledges that s/he has the right to request a list of the names and addresses of any potential recipients of the Information and to review and correct the Information by contacting his/her local human resources representative. The Participant acknowledges that the collection, processing and transfer of the Information is important to Plan administration and that failure to consent to same may prohibit participation in the Plan.

22. Additional Matters. This Option Agreement is intended to comply with the applicable laws of any country or jurisdiction where Options are granted under the Plan, and all provisions hereof shall be construed in a manner to so comply. The following provisions apply to Participants providing services in the country noted:

Canada:

Section 4 above shall be amended to add the following language at the end thereof as a new sub-section (f):

(f) The Participant's date of termination of employment shall be the Participant's last day of active employment with the Company and its Subsidiaries and shall not include any period of statutory, contractual or common law reasonable notice or any period of deemed employment or salary continuance.

A new Section 23 shall be added as follows:

23. Tax Withholding. Section 12(b) of the Plan shall not apply. The Company shall be entitled to receive either a cash payment by or on behalf of the Participant or a sufficient amount

of the proceeds from the sale of Company Stock to be acquired pursuant to this Option Agreement by the Participant's delivery to the Company of an assignment of such proceeds and an authorization to the broker or selling agent to pay that amount to the Company and to effect such sale at the time of exercise or other delivery of shares of Company Stock for any sums required by federal, state or local law to be withheld or to satisfy any applicable payroll deductions with respect to the vesting of, lapse of restrictions on, or payment of any Option.

India:

As used herein, "Participant" shall have the meaning set forth in the Plan, except the term shall not include consultants of any Subsidiary in India.

Section 4(b) above shall be modified to read as follows:

> Termination of Service on Account of Death. Upon the Participant's termination of service on account of death, all of the Participant's unvested Options shall immediately vest and become exercisable by his legal heirs or nominees. The Options shall remain exercisable for one (1) year from and including the date of the Participant's death (and shall thereafter terminate).

Section 4(c) above shall be deleted in its entirety and replaced with the following language:

> Termination of Service on Account of Disability or Voluntary Retirement with Consent of Company. If the Participant voluntarily Retires with the consent of the Company or if the Participant's service terminates due to Disability, the Participant's unvested Options as of the date of such termination shall vest on the date of Disability or the date of termination of service due to voluntary retirement, as the case may be. The Options so vested shall remain exercisable for a period of one (1) year from and including the date such Option becomes vested, and shall thereafter terminate.

Section 10 above shall be amended to delete the term "transferee".

Section 11 above shall be deleted in its entirety and replaced with the following language:

> No Assignment. Notwithstanding anything to the contrary in this Option Agreement, but subject to the assignment of the Option upon death of the Participant, neither this Option Agreement nor any rights granted herein shall be assignable by the Participant.

Section 12 above shall be deleted in its entirety and replaced with the following language:

> Necessary Acts. The Participant hereby agrees to perform all acts, and to execute and deliver any documents that may be reasonably necessary to carry out the provisions of

this Option Agreement, including but not limited to all acts and documents related to compliance with federal and/or state securities and/or tax laws and applicable Indian law. The rights and interests of the Participant under the Option Agreement shall be subject to compliance under the Foreign Exchange Management Act, 1999 and the related rules thereto.

Ireland:

Section 4(c) above shall be deleted in its entirety and replaced with the following language:

Termination of Service on Account of Disability. If the Participant's service terminates due to Disability, the Participant's unvested Options as of the date of such termination shall continue to vest in accordance with the original vesting schedule set forth above. The Options shall remain exercisable for a period of one (1) year from and including the later of (i) the date such entire Option becomes exercisable in accordance with the vesting schedule and (ii) the date of termination of service (and shall thereafter terminate).

Section 10 above shall be amended to delete the words "transferees, assignees" therefrom.

Section 11 above shall be deleted in its entirety and replaced with the following language:

No Assignment or Transfer. Notwithstanding anything to the contrary in this Option Agreement, neither this Option Agreement nor any rights granted herein shall be assignable by the Participant. Neither this Option Agreement nor any rights granted herein shall be transferable by the Participant in any circumstances, except on the death of the Participant.

Luxembourg:

Section 4(c) above shall be amended to add the following language at the end thereof:

As used herein, "Disability" shall mean either (i) the Participant's inability to, solely because of injury or physical or mental illness, perform the material duties of his or her regular occupation in a situation where the Participant receives paid sickness, incapacity or invalidity benefits from any of the Luxembourg competent authorities for a period that lasts or can reasonably be expected to last for a continuous period of 6 months, or (ii) the Participant's *reclassement* by the competent commission following an irrevocable decision from said commission.

Section 4(d) above shall be amended to delete the following sentence therefrom:

If a Participant is a party to an employment agreement with the Company or a Subsidiary and such employment agreement provides for benefits on a termination of employment for "Good Reason," (x) a termination of the Participant's employment for Good Reason

shall constitute a termination without Cause for purposes of Paragraphs 4 and 6 of this Option Agreement and (y) Good Reason will also include the Participant's termination of employment within ninety (90) days following the expiration of the employment term of the Participant's employment agreement under circumstances that would have constituted Good Reason had such termination occurred during the employment term.

Section 4 above shall be amended to add the following language at the end thereof as a new sub-section (f):

It is understood that the Participant's termination of service for any reason shall take place in accordance with applicable Luxembourg employment law rules.

Section 10 above shall be amended to delete the word "transferees" therefrom.

Section 11 above shall be deleted in its entirety and replaced with the following language:

No Assignment or Transfer. Notwithstanding anything to the contrary in this Option Agreement, neither this Option Agreement nor any rights granted herein shall be assignable by the Participant. Neither this Option Agreement nor any rights granted herein shall be transferable by the Participant in any circumstances, except on the death of the Participant.

Section 21 above shall be amended to add the following language at the end thereof:

, it being understood that for the purposes hereunder any Information on the Participant shall be processed in accordance with the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, as well as any applicable local laws.

United Kingdom:

As used herein, "Cause" shall have the meaning set forth in the Plan and, with respect to any Participant who is a party to an employment agreement with the Company, the definition of "Cause" shall include any circumstances in which the Company may terminate the Participant's employment agreement without notice in accordance with its terms.

As used herein, "Disability" shall mean the Participant's inability to, solely because of injury or physical or mental illness: (i) perform the material duties of his or her regular occupation and (ii) earn 80% or more of his or her base salary or wages in respect of his or her regular occupation, for a period that lasts or can reasonably be expected to last for a continuous period of 12 months.

Section 4(c) above shall be deleted in its entirety and replaced with the following language:

Termination of Service on Account of Disability. If the Participant's service terminates due to Disability, the Participant's unvested Options as of the date of such termination shall continue to vest in accordance with the original vesting schedule set forth above. The Options shall remain exercisable for a period of one (1) year from and including the later of (i) the date such entire Option becomes exercisable in accordance with the vesting schedule and (ii) the date of termination of service (and shall thereafter terminate).

The following additional section shall be inserted:

Tax Liabilities. The Participant irrevocably agrees (A) to pay, or enter into arrangements to the satisfaction of the Company to pay, to the Company, the Participant's employer or former employer (as appropriate) the amount of any Tax Liability, (B) that the Company, the Participant's employer or former employer (as appropriate) may, if it so elects by written notice to the Participant, recover the whole or any part of any Employer NICs from the Participant, (C) that the Participant shall, promptly upon being requested to do so by the Company, the Participant's employer or former employer (as appropriate), elect (using a form approved by HM Revenue & Customs) that the whole or any part of the liability for Employer NICs shall be transferred to the Participant; (D) to enter into a joint election, under section 431(1) or 431(2) of the Income Tax (Earnings & Pensions) Act 2003 ("ITEPA"), in respect of the Company Stock to be acquired on exercise of the Participant's Option, if required to do so by the Company, the Participant's employer or former employer, before, on or within 14 days after any date of exercise of the Option. For the purposes of this section the following capitalized terms shall have the meanings set out below:

"Employer NICs": any secondary class 1 (employer) national insurance contributions that the Company or any employer (or former employer) of the Participant is liable to pay as a result of any Taxable Event (or which that person would be liable to pay in the absence of an election of the type referred to in (C) above) and that may be lawfully recovered from the Participant.

"Taxable Event": any event or circumstance that gives rise to a liability for the Participant to pay income tax and national insurance contributions or either of them in respect of: (a) the Option, including its exercise, its assignment or surrender for consideration, or the receipt of any benefit in connection with it; (b) any shares (or other securities or assets): (i) earmarked or held to satisfy the Option; (ii) acquired on exercise of the Option; (iii) acquired as a result of holding the Option; or (iv) acquired in consideration of the Option's assignment or surrender; (c) any securities (or other assets) acquired or earmarked as a result of holding shares (or other securities or assets) mentioned in (b); or

(d) any amount due in respect of assets within (a) to (c) above and not made good by the Participant within the time limit specified in section 222 ITEPA.

"Tax Liability": the total of (a) any income tax and primary class 1 (employee) national insurance contributions that any employer (or former employer) of the Participant is liable to account for (or reasonably believes it is liable to account for) as a result of any Taxable Event; and (b) any Employer NICs that any employer (or former employer) of the Participant is liable to pay (or reasonably believes it is liable to pay) as a result of any Taxable Event and that can be recovered lawfully from the Participant.

Section 19 above shall be deleted in its entirety and replaced with the following language:

Nothing contained in the Plan or this Option Agreement shall form part of the Participant's contract of employment. The Participant hereby acknowledges that under no circumstances will s/he, on ceasing to be an employee or director of or otherwise engaged by the Company or any of its Subsidiaries for any reason (including as a result of a repudiatory breach of contract by the Company or any of its Subsidiaries), be entitled to any compensation for any loss of any right or benefit or prospective right or benefit under the Plan that s/he might otherwise have enjoyed whether such compensation is claimed by way of damages for wrongful dismissal or other breach of contract or by way of compensation for loss of office or otherwise howsoever. By signing this Option Agreement the Participant shall be deemed irrevocably to have waived any such entitlement.

IN WITNESS WHEREOF, the parties hereto have executed this Option Agreement as of the date set forth above.

ENDO INTERNATIONAL PLC

By: ____
Name: Paul V. Campanelli
Title: President & Chief Executive Officer

PARTICIPANT

Signature: ____
Print Name: __

Grant No.

ENDO INTERNATIONAL PLC
STOCK AWARD AGREEMENT
UNDER THE AMENDED AND RESTATED 2015 STOCK INCENTIVE PLAN

This Stock Award Agreement (this "Award Agreement"), is made and entered into as of the date of grant set forth below (the "Date of Grant") by and between Endo International plc, an Irish public limited company (the "Company"), and the participant named below (the "Participant"). Capitalized terms not defined herein shall have the meanings ascribed to them in the Company's Amended and Restated 2015 Stock Incentive Plan (the "Plan"). Where the context permits, references to the Company shall include any successor to the Company.

Name of Participant:

Number of Stock Awards:

Date of Grant:

Vesting Dates: Stock Awards vest ratably over the first, second, third [and fourth] anniversaries of the Date of Grant

1. Grant of Stock Awards. The Company hereby grants to the Participant the total number of restricted stock units set forth above (the "Stock Awards"), subject to all of the terms and conditions of this Award Agreement and the Plan.

2. Form of Payment and Vesting. The Stock Award granted hereunder shall vest on the vesting dates set forth above, provided that the Participant is employed by the Company or one of its Subsidiaries on the applicable vesting date (except as set forth in Paragraph 4 of this Agreement). The Participant shall be entitled to receive one share of Company Stock in respect of each vested Stock Award as soon as practicable following the applicable vesting date, but no later than the later to occur of (a) the end of the calendar year in which the applicable vesting date occurs and (b) the fifteenth day of the third calendar month following the applicable vesting date.

3. Restrictions. The Stock Awards granted hereunder may not be sold, assigned, transferred, pledged, hypothecated or otherwise disposed of or encumbered, and shall be subject to a risk of forfeiture until any requirements or restrictions contained in this Award Agreement or in the Plan have been otherwise satisfied, terminated or expressly waived by the Company in writing.

4. Termination of Service; Disability.

(a) Termination of Service for Cause. Upon the Participant's termination of service with the Company and its Subsidiaries for Cause all of the Participant's unvested Stock Awards shall be forfeited as of such date.

(b) Termination of Service on Account of Death. Upon termination of the Participant's service with the Company and its Subsidiaries on account of death, all of the Participant's unvested Stock Awards shall immediately vest.

(c) Termination of Service on Account of Voluntary Retirement with Consent of Company. If the Participant voluntarily Retires with the consent of the Company, all of the Participant's unvested Stock Awards as of the date of termination shall continue to vest in accordance with the original vesting schedule set forth in Paragraph 2 of this Award Agreement.

(d) Disability. If the Participant incurs a Disability that also constitutes a "disability" within the meaning of Section 409A, all of the Participant's unvested Stock Awards as of the date of such Disability shall continue to vest in accordance with the original vesting schedule set forth in Paragraph 2 of this Award Agreement regardless of any subsequent termination of service.

(e) Termination of Service by the Company without Cause or by the Participant for Good Reason. Upon termination of the Participant's service with the Company and its Subsidiaries by the Company or its Subsidiaries without Cause, Stock Awards that are unvested as of date of termination shall be forfeited. If a Participant is a party to an employment agreement with the Company or a Subsidiary and such employment agreement provides for benefits on a termination of employment for "Good Reason," (x) a termination of the Participant's employment for Good Reason shall constitute a termination without Cause for purposes of Paragraphs 4 and 5 of this Award Agreement and (y) Good Reason will also include the Participant's termination of employment within ninety (90) days following the expiration of the employment term of the Participant's employment agreement under circumstances that would have constituted Good Reason had such termination occurred during the employment term.

(f) Termination of Service for any Other Reason. Unless otherwise provided in an individual agreement with the Participant, if the Participant has a termination of service for any reason other than the reasons enumerated in Subparagraphs (a) through (e) above, Stock Awards that are unvested as of date of termination of services shall be forfeited.

5. Change in Control. In the event of a Change in Control:

(a) if the Stock Awards are assumed or substituted (within the meaning of the Plan) in connection with such Change in Control, and the Participant incurs a termination of service with the Company and its Subsidiaries by the Company or its Subsidiary without Cause during the 24-month period following such Change in Control, then the Stock Awards shall vest on the date of such termination of services.

(b) if the Stock Awards are not assumed or substituted in connection with such Change in Control, then the Stock Awards shall immediately vest upon the occurrence of the Change in Control.

6. Change in Control Definition. Notwithstanding anything to the contrary in the Plan, for purposes of this Award Agreement, "Change in Control" means and shall be deemed to have occurred upon the first of the following events to occur:

(a) Any "Person" (as defined below) is or becomes the "beneficial owner" ("Beneficial Owner") within the meaning set forth in Rule 13d-3 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), directly or indirectly, of securities of the Company (not including in the securities beneficially owned by such Person any securities acquired directly from the Company or its "Affiliates" (as defined in Rule 12b-2 promulgated under Section 12 of the Exchange Act)) representing 30% or more of the combined voting power of the Company's then outstanding securities, excluding any Person who becomes such a Beneficial Owner in connection with a transaction described in clause (A) of Subparagraph (c) below; or

(b) The following individuals cease for any reason to constitute a majority of the number of directors then serving: individuals who, on the date hereof, constitute the Board of Directors and any new director (other than a director whose initial assumption of office is in connection with an actual or threatened election contest, including but not limited to a consent solicitation, relating to the election of directors of the Company) whose appointment or election by the Board of Directors or nomination for election by the Company's shareholders was approved or recommended by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors on the date hereof or whose appointment, election or nomination for election was previously so approved or recommended; or

(c) There is consummated a merger or consolidation of the Company or any direct or indirect subsidiary of the Company with any other corporation or other entity, other than (A) a merger or consolidation which results in (i) the voting securities of the Company outstanding immediately prior to such merger or consolidation continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or any parent thereof), in combination with the ownership of any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any subsidiary of the Company, at least 60% of the combined voting power of the securities of the Company or such surviving entity or any parent thereof outstanding immediately after such merger or consolidation and (ii) the individuals who comprise the Board of Directors immediately prior thereto constituting immediately thereafter at least a majority of the board of directors of the Company, the entity surviving such merger or consolidation or, if the Company or the entity surviving such merger is then a subsidiary, the ultimate parent thereof, or (B) a merger or consolidation effected to implement a recapitalization of the Company (or similar transaction) in which no Person is or becomes the Beneficial Owner, directly or indirectly, of securities of the Company (not including in the securities Beneficially Owned by such Person any securities acquired directly from the Company or its Affiliates) representing 30% or more of the combined voting power of the Company's then outstanding securities; or

(d) The shareholders of the Company approve a plan of complete liquidation or dissolution of the Company or there is consummated an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets (it being conclusively presumed that any sale or disposition is a sale or disposition by the Company of all or substantially all of its assets if the consummation of the sale or disposition is contingent upon approval by the Company's shareholders unless the Board of Directors expressly determines in writing that such approval is required solely by reason of any relationship between the Company and any other Person or an Affiliate of the Company and any other Person), other than a sale or disposition by the Company of all or substantially all of the Company's assets to an entity (A) at least 60% of the combined voting power of the voting securities of which are owned by shareholders of the Company in substantially the same proportions as their ownership of the Company immediately prior to such sale or disposition and (B) the majority of whose board of directors immediately following such sale or disposition consists of individuals who comprise the Board of Directors immediately prior thereto.

For purposes hereof, “Person” shall have the meaning given in Section 3(a)(9) of the Exchange Act, as modified and used in Sections 13(d) and 15(d) thereof, except that such term shall not include (i) the Company or any of its Subsidiaries, (ii) a trustee or other fiduciary holding securities under an employee benefit plan of the Company or any of its Affiliates, (iii) an underwriter temporarily holding securities pursuant to an offering of such securities, or (iv) a corporation owned, directly or indirectly, by the shareholders of the Company in substantially the same proportions as their ownership of stock of the Company.

Notwithstanding the foregoing, (i) a “Change in Control” shall not be deemed to have occurred by virtue of the consummation of any transaction or series of integrated transactions immediately following which the record holders of Company Stock immediately prior to such transaction or series of transactions continue to have substantially the same proportionate ownership in an entity which owns all or substantially all of the assets of the Company immediately following such transaction or series of transactions and (ii) to the extent required to avoid the imposition of taxes or penalties under Section 409A of the Code with respect to any Award that constitutes a deferral of compensation subject to Section 409A of the Code, no such Award shall become payable as a result of the occurrence of a Change in Control unless such Change in Control also constitutes a change in the ownership or effective control of the Company or a change in ownership of a substantial portion of the assets of the Company under Section 409A of the Code.

For the avoidance of doubt, any one or more of the events described in subparagraphs (a) through (d) may be effected pursuant to (A) a takeover under Irish takeover rules; (B) a compromise or arrangement under Chapter 1 of Part 9 of the Companies Act 2014 of the Republic of Ireland or (C) Chapter 2 of Part 9 of the Companies Act 2014 of the Republic of Ireland.

7. No Shareholder Rights Prior to Vesting. The Participant shall not have any rights of a shareholder (including the right to distributions or dividends) with respect to the Stock Award until shares of Company Stock are issued pursuant to the terms of this Award Agreement.

8. Stock Award (RSU) Agreement Subject to Plan. This Award Agreement is made pursuant to all of the provisions of the Plan, which is incorporated herein by reference, and is intended, and shall be interpreted in a manner, to comply therewith. In the event of any conflict between the provisions of this Award Agreement and the provisions of the Plan, the provisions of the Plan shall govern, except as expressly provided by Paragraph 6 of this Award Agreement.

9. No Rights to Continuation of Service. Nothing in the Plan or this Award Agreement shall confer upon the Participant any right to continue in the employ of the Company or any Subsidiary thereof or shall interfere with or restrict the right of the Company or its

shareholders (or of a Subsidiary or its shareholders, as the case may be) to terminate the Participant's service any time for any reason whatsoever, with or without Cause.

10. Tax Withholding. The Company shall be entitled to require a cash payment by or on behalf of the Participant and/or to deduct from any Stock Awards granted hereunder or other compensation payable to the Participant any sums required by federal, state or local tax law to be withheld or to satisfy any applicable payroll deductions with respect to the vesting of, lapse of restrictions on, or payment of any Stock Award, up to the maximum statutory tax rates. A Participant who is an officer or director subject to the provisions of Section 16 of the Exchange Act as of the date of the withholding requirement may satisfy the foregoing requirement by electing to have the Company withhold from delivery shares of Company Stock in accordance with Section 12(b) of the Plan.

11. Section 409A Compliance. The Stock Award is intended to comply with Code Section 409A to the extent subject thereto and shall be interpreted in accordance with Code Section 409A and Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Date of Grant. Notwithstanding any provision in the Plan or Award Agreement to the contrary, no payment or distribution under this Award Agreement that constitutes an item of deferred compensation under Code Section 409A and becomes payable by reason of the Participant's termination of service with the Company and its Subsidiaries will be made to the Participant until the Participant's termination of service constitutes a "separation from service" (as defined in Code Section 409A). For purposes of this Award Agreement, each amount to be paid or benefit to be provided shall be construed as a separate identified payment for purposes of Code Section 409A. If a participant is a "specified employee" (as defined in Code Section 409A), then to the extent necessary to avoid the imposition of taxes under Code Section 409A, such Participant shall not be entitled to any payments upon a termination of his or her service until the earlier of: (i) the expiration of the six (6)-month period measured from the date of such Participant's "separation from service" and (ii) the date of such Participant's death. Upon the expiration of the applicable waiting period set forth in the preceding sentence, all payments and benefits deferred pursuant to this Paragraph 11 (whether they would have otherwise been payable in a single lump sum or in installments in the absence of such deferral) shall be paid to such Participant in a lump sum as soon as practicable, but in no event later than sixty (60) calendar days, following such expired period, and any remaining payments due under this Award Agreement will be paid in accordance with the normal payment dates specified for them herein.

12. Governing Law. This Award Agreement shall be governed by, interpreted under, and construed and enforced in accordance with the internal laws, and not the laws pertaining to conflicts or choices of laws, of the State of Delaware applicable to agreements made and to be performed wholly within the State of Delaware.

13. Binding on Successors. The terms of this Award Agreement shall be binding upon the Participant and upon the Participant's heirs, executors, administrators, personal representatives, transferees, assignees and successors in interest, and upon the Company and its successors and assignees, subject to the terms of the Plan.

14. No Assignment. Notwithstanding anything to the contrary in this Award Agreement, neither this Award Agreement nor any rights granted herein shall be assignable by the Participant.

15. Necessary Acts. The Participant hereby agrees to perform all acts, and to execute and deliver any documents that may be reasonably necessary to carry out the provisions of this Award Agreement, including but not limited to all acts and documents related to compliance with federal and/or state securities and/or tax laws and applicable Irish law.

16. Entire Stock Award (RSU) Agreement. This Award Agreement and the Plan contain the entire agreement and understanding among the parties as to the subject matter hereof.

17. Headings. Headings are used solely for the convenience of the parties and shall not be deemed to be a limitation upon or descriptive of the contents of any such Paragraph.

18. Counterparts. This Award Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original and all of which together shall be deemed to be one and the same instrument.

19. Notices. All notices and other communications under this Award Agreement shall be in writing and shall be given by first class mail, certified or registered with return receipt requested, and shall be deemed to have been duly given three days after mailing to the respective parties named below:

If to Company:

Endo International plc
c/o Endo Health Solutions Inc.
1400 Atwater Drive
Malvern, PA 19355
Attention: Treasurer

If to the Participant:

At the address on file with the Company.

Either party hereto may change such party's address for notices by notice duly given pursuant hereto.

20. Amendment. No amendment or modification hereof shall be valid unless it shall be in writing and signed by all parties hereto.

21. Acceptance. The Participant hereby acknowledges receipt of a copy of the Plan and this Award Agreement. The Participant has read and understands the terms and provisions thereof, and accepts the Stock Awards subject to all the terms and conditions of the Plan and this Award Agreement.

22. No Compensation for Loss of Rights. The Participant hereby acknowledges that under no circumstances will s/he, on ceasing to be an employee or director of the Company and its Subsidiaries, be entitled to any compensation for any loss of any right or benefit or prospective right or benefit under the Plan that s/he might otherwise have enjoyed whether such compensation is claimed by way of damages for wrongful dismissal or other breach of contract or by way of compensation for loss of office or otherwise howsoever.

23. Severability. All the terms and provisions of this Award Agreement are distinct and severable, and if any term or provision is held unenforceable, illegal or void in whole or in part by any court, regulatory authority or other competent authority it shall to that extent be deemed not to form part of this Award Agreement, and the enforceability, legality and validity of the remainder of this Award Agreement will not be affected; if any invalid, unenforceable or illegal provision would be valid, enforceable or legal if some part of it were deleted, the provision shall apply with whatever modification is necessary to make it valid, enforceable and legal.

24. Data Protection. The Participant hereby acknowledges and consents to the Company and any Subsidiary sharing and exchanging his/her information held in order to administer and operate the Plan (including personal details, data relating to participation, salary, taxation and employment and sensitive personal data, e.g. data relating to physical or mental health, criminal conviction or the alleged commission of offences) (the "Information") and providing the Company and/or the Subsidiary's agents and/or third parties with the Information for the administration and operation of the Plan and the Participant further accepts that this may involve the Information being sent to a country outside the country in which the Participant provides services including to a country which may not have the same level of data protection laws as his/her home country. The Participant acknowledges that s/he has the right to request a list of the names and addresses of any potential recipients of the Information and to review and correct the Information by contacting his/her local human resources representative. The Participant acknowledges that the collection, processing and transfer of the Information is

important to Plan administration and that failure to consent to same may prohibit participation in the Plan.

25. Additional Matters. This Award Agreement is intended to comply with the applicable laws of any country or jurisdiction where the Stock Awards are granted under the Plan, and all provisions hereof shall be construed in a manner to so comply. The following provisions apply to Participants providing services in the country noted:

Canada:

Section 4 above shall be amended to add the following language at the end thereof as a new subsection (g):

(g) The Participant's date of termination of service shall be the Participant's last day of active service with the Company and its Subsidiaries and shall not include any period of statutory, contractual or common law reasonable notice or any period of deemed employment or salary continuance.

Section 10 above shall be deleted in its entirety and replaced with the following language:

10. Tax Withholding. The Company shall be entitled to receive either a cash payment by or on behalf of the Participant or a sufficient amount of the proceeds from the sale of Company Stock to be acquired pursuant to this Award Agreement by the Participant's delivery to the Company of an assignment of such proceeds and an authorization to the broker or selling agent to pay that amount to the Company and to effect such sale at the time of exercise or other delivery of shares of Company Stock for any sums required by federal, state or local tax law to be withheld or to satisfy any applicable payroll deductions with respect to the vesting of, lapse of restrictions on, or payment of any Stock Award.

India:

As used herein, "Participant" shall have the meaning set forth in the Plan, except the term shall not include consultants of any Subsidiary in India.

Section 4(b) shall deleted in its entirety and replaced with the following language:

Termination of Service on Account of Death. Upon termination of the Participant's service on account of death, all of the Participant's unvested Stock Awards shall immediately vest in his legal heirs or nominees.

Section 4(c) shall be deleted in its entirety and replaced with the following language:

Termination of Service on Account of Voluntary Retirement with Consent of Company. If the Participant voluntarily Retires with the consent of the Company, all of the Participant's unvested Stock Awards shall vest on the date of termination of service.

Section 4(d) shall be deleted in its entirety and replaced with the following language:

Disability. If the Participant incurs a Disability that also constitutes a "disability" within the meaning of Section 409A, all of the Participant's unvested Stock Awards as of the date of such Disability shall continue to vest in accordance with the original vesting schedule set forth in Paragraph 2 of this Award Agreement regardless of any subsequent termination of service, provided such Disability does not result in termination of service. In the event of termination of service, the unvested Stock Award shall vest in him on the date of termination.

Section 10 shall be deleted in its entirety and replaced with the following language:

Tax Withholding. The Subsidiary under whose payroll the Participant is registered shall have the right to deduct or withhold from the Stock Award or payroll of the Participant an amount sufficient to satisfy income taxes required by law to be withheld with respect to the vesting of, lapse of restrictions on, or payment of any Stock Award or to satisfy any applicable payroll deductions. The obligations of the Company under this Award Agreement will be conditioned on such arrangement and the Company or such Subsidiary will, to the extent permitted by law, have the right to deduct any such taxes from any payment of any kind otherwise due to the Participant. A Participant who is an officer or director subject to the provisions of Section 16 of the Exchange Act as of the date of the withholding requirement may satisfy the foregoing requirement by electing to have the Subsidiary under whose payroll the Participant is registered withhold from delivery shares of Company Stock in accordance with Section 12(b) of the Plan.

Section 13 shall be amended to delete the term "transferees".

Section 14 shall be deleted in its entirety and replaced with the following language:

No Assignment. Notwithstanding anything to the contrary in this Award Agreement, but subject to the assignment of the Stock Award upon death of the Participant, neither this Award Agreement nor any rights granted herein shall be assignable by the Participant.

Section 15 shall be deleted in its entirety and replaced with the following language:

Necessary Acts. The Participant hereby agrees to perform all acts, and to execute and deliver any documents that may be reasonably necessary to carry out the provisions of

this Award Agreement, including but not limited to all acts and documents related to compliance with federal and/or state securities and/or tax laws and applicable Indian law. The rights and interests of the Participant under the Award Agreement shall be subject to compliance under the Foreign Exchange Management Act, 1999 and the related rules thereto.

Ireland:

Section 4(c) above shall be deleted and be of no force and effect.

Section 13 above shall be amended to delete the words “transferees, assignees” therefrom.

Section 14 above shall be deleted in its entirety and replaced with the following language:

No Assignment or Transfer. Notwithstanding anything to the contrary in this Award Agreement, neither this Award Agreement nor any rights granted herein shall be assignable by the Participant. Neither this Award Agreement nor any rights granted herein shall be transferable by the Participant in any circumstances, except on the death of the Participant.

Luxembourg:

Section 4(c) above shall be deleted in its entirety and replaced with the following language:

Termination of Service on Account of Retirement. If the Participant voluntarily retires according to Luxembourg employment law, all of the Participant’s then unvested Stock Awards shall vest on the Participant’s termination date.

Section 4(d) above shall be amended to (i) delete the phrase “that also constitutes a ‘disability’ within the meaning of Section 409A of the Code” therefrom and (ii) add the following language at the end thereof:

As used herein, “Disability” shall mean either (i) the Participant’s inability to, solely because of injury or physical or mental illness, perform the material duties of his or her regular occupation in a situation where the Participant receives paid sickness, incapacity or invalidity benefits from any of the Luxembourg competent authorities for a period that lasts or can reasonably be expected to last for a continuous period of 6 months, or (ii) the Participant’s *reclassement* by the competent commission following an irrevocable decision from said commission.

Section 4 above shall be amended to add the following language at the end thereof as a new sub-section (g):

It is understood that the Participant’s termination of service for any reason shall take place in accordance with applicable Luxembourg employment law rules.

Section 10 above shall be amended to add the following language at the end thereof:

For Participants subject to Luxembourg employment law, the Company shall comply with Circular L.I.R. n°104/2 dated 29 November 2017 and issued by the Luxembourg Tax Administration to the extent subject thereto and shall be interpreted in accordance with its provisions and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Date of Grant.

Section 13 above shall be amended to delete the word “transferees” therefrom.

Section 14 above shall be deleted in its entirety and replaced with the following language:

No Assignment or Transfer. Notwithstanding anything to the contrary in this Award Agreement, neither this Award Agreement nor any rights granted herein shall be assignable by the Participant. Neither this Award Agreement nor any rights granted herein shall be transferable by the Participant in any circumstances, except on the death of the Participant.

Section 24 above shall be amended to add the following language at the end thereof:

, it being understood that for the purposes hereunder any Information on the Participant shall be processed in accordance with the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, as well as any applicable local laws.

United Kingdom:

As used herein, “Cause” shall have the meaning set forth in the Plan and, with respect to any Participant who is a party to an employment agreement with the Company, the definition of “Cause” shall include any circumstances in which the Company may terminate the Participant’s employment agreement without notice in accordance with its terms.

As used herein, “Disability” shall mean the Participant’s inability to, solely because of injury or physical or mental illness: (i) perform the material duties of his or her regular occupation and (ii) earn 80% or more of his or her base salary or wages in respect of his or her regular occupation, for a period that lasts or can reasonably be expected to last for a continuous period of 12 months.

Section 4(c) above shall be deleted and be of no force and effect.

Section 10 above shall be deleted in its entirety and replaced with the following:

Tax Liabilities. The Participant irrevocably agrees (A) to pay, or enter into arrangements to the satisfaction of the Company to pay, to the Company, the Participant's employer or former employer (as appropriate) the amount of any Tax Liability, (B) that the Company, the Participant's employer or former employer (as appropriate) may, if it so elects by written notice to the Participant, recover the whole or any part of any Employer NICs from the Participant, (C) that the Participant shall, promptly upon being requested to do so by the Company, the Participant's employer or former employer (as appropriate), elect (using a form approved by HM Revenue & Customs) that the whole or any part of the liability for Employer NICs shall be transferred to the Participant; (D) to enter into a joint election, under section 431(1) or 431(2) of the Income Tax (Earnings & Pensions) Act 2003 ("ITEPA"), in respect of the Company Stock delivered pursuant to a Stock Award, if required to do so by the Company, the Participant's employer or former employer, before, on or within 14 days after any date of delivery of such Company Stock. For the purposes of this section the following capitalized terms shall have the meanings set out below:

"Employer NICs**"**: any secondary class 1 (employer) national insurance contributions that the Company or any employer (or former employer) of the Participant is liable to pay as a result of any Taxable Event (or which that person would be liable to pay in the absence of an election of the type referred to in (C) above) and that may be lawfully recovered from the Participant.

"Taxable Event**"**: any event or circumstance that gives rise to a liability for the Participant to pay income tax and national insurance contributions or either of them in respect of: (a) the Stock Award, including its assignment or surrender for consideration, or the receipt of any benefit in connection with it; (b) any shares (or other securities or assets): (i) earmarked or held to satisfy the Stock Award; (ii) acquired pursuant to the Stock Award; or (iv) acquired in consideration of the assignment or surrender of the Stock Award; (c) any securities (or other assets) acquired or earmarked as a result of holding shares (or other securities or assets) mentioned in (b); or (d) any amount due in respect of assets within (a) to (c) above and not made good by the Participant within the time limit specified in section 222 ITEPA.

"Tax Liability**"**: the total of (a) any income tax and primary class 1 (employee) national insurance contributions that any employer (or former employer) of the Participant is liable to account for (or reasonably believes it is liable to account for) as a result of any Taxable Event; and (b) any Employer NICs that any employer (or former employer) of the Participant is liable to pay (or reasonably believes it is liable to pay) as a result of any Taxable Event and that can be recovered lawfully from the Participant.

Section 22 shall be replaced by the following provision:

Nothing contained in the Plan or this Stock Award shall form part of the Participant's contract of employment. The Participant hereby acknowledges that under no circumstances will s/he, on ceasing to be an employee or director of or otherwise engaged by the Company or any of its Subsidiaries for any reason (including as a result of a repudiatory breach of contract by the Company or any of its Subsidiaries), be entitled to any compensation for any loss of any right or benefit or prospective right or benefit under the Plan that s/he might otherwise have enjoyed whether such compensation is claimed by way of damages for wrongful dismissal or other breach of contract or by way of compensation for loss of office or otherwise howsoever. By signing this Stock Award the Participant shall be deemed irrevocably to have waived any such entitlement.

IN WITNESS WHEREOF, the parties hereto have executed this Award Agreement as of the date set forth above.

ENDO INTERNATIONAL PLC

By: ____
Name: Paul V. Campanelli
Title: President & Chief Executive Officer

PARTICIPANT

Signature: __
Print Name: __

Grant No.

ENDO INTERNATIONAL PLC
PERFORMANCE AWARD AGREEMENT
UNDER THE AMENDED AND RESTATED 2015 STOCK INCENTIVE PLAN

This Performance Award Agreement (this "Award Agreement") is made and entered into as of the date of grant set forth below (the "Date of Grant") by and between Endo International plc, an Irish public limited company (the "Company"), and the participant named below (the "Participant"). Capitalized terms not defined herein shall have the meanings ascribed to them in the Company's Amended and Restated 2015 Stock Incentive Plan (the "Plan"). Where the context permits, references to the Company shall include any successor to the Company.

Name of Participant:	
Total Target Performance Award (Total Number of Restricted Stock Units Underlying the Target Performance Award):	
Date of Grant:	
Performance Period for the TSR Performance Award:	The period beginning on the Date of Grant and ending on the third anniversary of the Date of Grant.
Performance Period for the FCF Performance Award:	Each of three successive annual periods, the first of which begins on the first day of the Company's fiscal year that includes the Date of Grant.

1. Grant of Performance Awards. The Company hereby grants to the Participant the total number of restricted stock units set forth above, fifty percent (50%) of which shall be subject to Total Shareholder Return performance targets (the "TSR Performance Award") and the other fifty percent (50%) of which shall be subject to Free Cash Flow performance targets (the "FCF Performance Award," and together with the TSR Performance Award, the "Performance Award"). The Performance Award shall be subject to all of the terms and conditions of this Award Agreement and the Plan.

2. Form of Payment and Vesting.

(a) The TSR Performance Award shall vest on the last day of the TSR Performance Period (the "TSR Vesting Date") in a number of shares of Company Stock equal to the multiple of the TSR Performance Award achieved, as determined by the Committee (or its designee) in accordance with the performance conditions set forth in Exhibit A hereto ("Exhibit A"), provided that the Participant is providing service to the Company or one of its Subsidiaries on the TSR Vesting Date (other than as is provided by Paragraph 4 of this Award Agreement).

Any shares of Company Stock earned in accordance with the prior sentence shall be delivered to the Participant as soon as practicable following the TSR Vesting Date, but no later than the later to occur of (i) the end of the calendar year in which the TSR Vesting Date occurs and (ii) the fifteenth day of the third calendar month following the TSR Vesting Date. Any portion of the TSR Performance Award that could have been earned in accordance with the provisions of Exhibit A that is not earned as of the TSR Vesting Date, as determined by the Committee (or its designee), shall be immediately forfeited.

(b) During each FCF Performance Period, one third (1/3rd) of the number of restricted stock units underlying the target FCF Performance Award shall be eligible to be earned based on achievement of the performance conditions set forth in Exhibit B hereto (as may be supplemented from time to time) ("Exhibit B"). The FCF Performance Award shall vest on the third anniversary of the Date of Grant of the FCF Performance Award (the "FCF Vesting Date") in a number of shares of Company Stock equal to the sum of the number of shares of Company Stock so earned for each of the three FCF Performance Periods, as determined by the Committee (or its designee), provided that the Participant is providing service to the Company or one of its Subsidiaries on the FCF Vesting Date (other than as is provided by Paragraph 4 of this Award Agreement). Any shares of Company Stock earned and vested in accordance with the foregoing shall be delivered to the Participant as soon as practicable following the FCF Vesting Date, but no later than the fifteenth day of the third calendar month following the calendar year in which the FCF Vesting Date occurs. For each FCF Performance Period, any portion of the FCF Performance Award that could have been earned in accordance with the provisions of Exhibit B that is not earned as of the last day of the applicable FCF Performance Period, as determined by the Committee (or its designee), shall be immediately forfeited.

3. Restrictions. The Performance Award granted hereunder may not be sold, assigned, transferred, pledged, hypothecated or otherwise disposed of or encumbered, and shall be subject to a risk of forfeiture until any requirements or restrictions contained in this Award Agreement or in the Plan have been otherwise satisfied, terminated or expressly waived by the Company in writing.

4. Termination of Service; Disability.

(a) Termination of Service for Cause. Upon the Participant's termination of service with the Company and its Subsidiaries for Cause prior to the TSR Vesting Date or the FCF Vesting Date, the unvested portion, if any, of the Participant's Performance Award shall be forfeited as of the date of such termination of service.

(b) Termination of Service on Account of Death. Upon termination of the Participant's service with the Company and its Subsidiaries on account of death prior to the TSR Vesting Date or the FCF Vesting Date, the unvested portion, if any, of the Participant's Performance Award shall vest as of the date of such termination of service at target levels (as set forth on Exhibit A and Exhibit B, as applicable). The vested Performance Award (determined in accordance with the foregoing and including any portion of the FCF Performance Award that was earned prior to the Participant's death in accordance with Exhibit B for any completed FCF Performance Period) shall be settled in shares of Company Stock for the benefit of the

Participant's estate no later than the later to occur of (i) the end of the calendar year in which the Participant's death occurs or (ii) the fifteenth day of the third calendar month following the Participant's death.

(c) Termination of Service on Account of Voluntary Retirement with Consent of Company. If the Participant voluntarily Retires with the consent of the Company prior to the TSR Vesting Date or the FCF Vesting Date, the Participant's Performance Award shall continue to be eligible to vest in accordance with the performance-based vesting conditions set forth on Exhibit A and Exhibit B, as applicable, regardless of such termination of service.

(d) Disability. If the Participant incurs a Disability that also constitutes a "disability" within the meaning of Section 409A of the Code prior to the TSR Vesting Date or the FCF Vesting Date, the Participant's Performance Award shall continue to be eligible to vest in accordance with the performance-based vesting conditions set forth on Exhibit A and Exhibit B, as applicable, regardless of any subsequent termination of service.

(e) Termination of Service by the Company without Cause or by the Participant for Good Reason.

(i) Upon termination of the Participant's service with the Company and its Subsidiaries by the Company or its Subsidiaries without Cause prior to the TSR Vesting Date, a portion of the Participant's TSR Performance Award shall vest based upon achievement of the TSR Performance Criteria (as defined in Exhibit A) measured as of the date of the Participant's termination of service, multiplied by a fraction, the numerator of which is the number of full months of the Participant's service during the TSR Performance Period and the denominator of which is the total number of months in the TSR Performance Period. The vested portion of the TSR Performance Award shall be settled in shares of Company Stock as soon as practicable following the Participant's termination of service, but no later than the later to occur of (A) the end of the calendar year in which such termination occurs or (B) the fifteenth day of the third calendar month following such termination. Notwithstanding the foregoing, the Committee (or such individual or individuals authorized by the Committee) may exercise discretion to determine payout achievement. Any portion of the TSR Performance Award that could have been earned in accordance with the provisions of this Section 4(e)(i) that is not earned as of the date of the Participant's termination of service shall be immediately forfeited on the date of the Participant's termination of service.

(ii) Upon termination of the Participant's service with the Company and its Subsidiaries by the Company or its Subsidiaries without Cause prior to the FCF Vesting Date but after the Company's first approval of estimated Free Cash Flow for the FCF Performance Period in which such termination of service occurs, the Participant's FCF Performance Award in respect of such FCF Performance Period shall vest based upon achievement of the most recently approved estimate of Free Cash Flow for the applicable FCF Performance Period, multiplied by a fraction, the numerator of which is the number of full months of Participant's service during the current FCF Performance Period and the denominator of which is twelve (12). If such termination occurs prior to the FCF Vesting Date and prior to the Company's first approval of estimated Free Cash Flow for the FCF Performance Period in which

such termination of service occurs, then the Participant shall not vest in any portion of the FCF Performance Award in respect of the FCF Performance Period in which such termination of service occurs. The vested portion of the FCF Performance Award determined in accordance with the foregoing (plus any portion of the Participant's FCF Performance Award for which the FCF Performance Criteria (as defined in Exhibit B) has been achieved in respect of any previously completed FCF Performance Period) shall be settled in shares of Company Stock immediately following such termination. Notwithstanding the foregoing the Committee (or such individual or individuals authorized by the Committee) may exercise discretion to determine payout achievement. Any portion of the FCF Performance Award that could have been earned in accordance with the provisions of this Section 4(e)(ii) that is not earned as of the date of the Participant's termination of service shall be immediately forfeited on the date of the Participant's termination of service.

(iii) If a Participant is a party to an employment agreement with the Company or a Subsidiary and such employment agreement provides for benefits on a termination of employment for "Good Reason," (x) a termination of the Participant's employment for Good Reason shall constitute a termination without Cause for purposes of Sections 4 and 5 and (y) Good Reason will also include the Participant's termination of employment within ninety (90) days following the expiration of the employment term of the Participant's employment agreement under circumstances that would have constituted Good Reason had such termination occurred during the employment term.

(f) Termination of Service for any Other Reason. Unless otherwise provided in an individual agreement with the Participant, if the Participant has a termination of service with the Company and its Subsidiaries prior to the TSR Vesting Date or the FCF Vesting Date for any reason other than the reasons enumerated in Subparagraphs (a) through (e) above, the Participant's Performance Award as of the date of termination of service shall be forfeited.

5. Change in Control. Notwithstanding anything to the contrary in the Plan, in the event of a Change in Control prior to the TSR Vesting Date or the FCF Vesting Date, as applicable, the provisions of this Section 5 shall apply.

(a) if the entire Performance Award is assumed or substituted (within the meaning of the Plan) in connection with such Change in Control, and the Participant incurs a termination of service from the Company and its Subsidiaries by the Company or its Subsidiary without Cause during the 24-month period following such Change in Control, then the restrictions, deferral limitations, payment conditions, and forfeiture conditions applicable to any portion of the Performance Award shall lapse and:

(i) the TSR Performance Award shall be settled in shares of Company Stock as soon as practicable following the Participant's termination of service, but no later than the later to occur of the end of the calendar year in which such termination occurs or the fifteenth day of the third calendar month following such termination, based on the greater of (y) actual achievement of TSR Performance Criteria or (z) target achievement of the TSR Performance Criteria, in either case measured as of the date of such termination, and

(ii) the FCF Performance Award shall be settled as soon as practicable following the Participant's termination of service, but no later than the later to occur of the end of the calendar year in which such termination occurs or the fifteenth day of the third calendar month following such termination, with the number of shares equal to the sum of (y) the number of shares of Company Stock underlying any portion of the Participant's FCF Performance Award for which the FCF Performance Criteria has been achieved in respect of any previously completed FCF Performance Period and (z) the number of shares of Company Stock subject to any portion of the FCF Performance Award for any FCF Performance Period not completed multiplied by one (1) or, if greater, a multiple determined based upon achievement of the most recently approved estimate of Free Cash Flow.

(b) if any portion of the Performance Award is not assumed or substituted in connection with such Change in Control, then the restrictions, deferral limitations, payment conditions, and forfeiture conditions applicable to any portion of the Performance Award shall lapse and:

(i) the TSR Performance Award shall be settled in shares of Company Stock immediately prior to the Change in Control based on the greater of (1) actual achievement of TSR Performance Criteria or (2) target achievement of the TSR Performance Criteria, in either case measured as of the date of the Change in Control, and

(ii) the FCF Performance Award shall be settled immediately prior to the Change in Control, with the number of shares equal to the sum of (y) the number of shares of Company Stock underlying any portion of the Participant's FCF Performance Award for which the FCF Performance Criteria has been achieved in respect of any previously completed FCF Performance Period and (z) the number of shares of Company Stock subject to any portion of the FCF Performance Award for any FCF Performance Period not completed multiplied by one (1) or, if greater, a multiple determined based upon achievement of the most recently approved estimate of Free Cash Flow.

(c) Any portion of the Performance Award that could have been earned in accordance with Section 5(a) or Section 5(b) that is not earned shall be immediately forfeited on the date of termination of service or the date the Change in Control occurs, as applicable.

6. Change in Control Definition. Notwithstanding anything to the contrary in the Plan, for purposes of this Award Agreement, "Change in Control" means and shall be deemed to have occurred upon the first of the following events to occur:

(a) Any "Person" (as defined below) is or becomes the "beneficial owner" ("Beneficial Owner") within the meaning set forth in Rule 13d-3 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), directly or indirectly, of securities of the Company (not including in the securities beneficially owned by such Person any securities acquired directly from the Company or its "Affiliates" (as defined in Rule 12b-2 promulgated under Section 12 of the Exchange Act)) representing 30% or more of the combined voting power of the Company's then outstanding securities, excluding any Person who becomes such a

Beneficial Owner in connection with a transaction described in clause (A) of Subparagraph (c) below; or

(b) The following individuals cease for any reason to constitute a majority of the number of directors then serving: individuals who, on the date hereof, constitute the Board of Directors and any new director (other than a director whose initial assumption of office is in connection with an actual or threatened election contest, including but not limited to a consent solicitation, relating to the election of directors of the Company) whose appointment or election by the Board of Directors or nomination for election by the Company's shareholders was approved or recommended by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors on the date hereof or whose appointment, election or nomination for election was previously so approved or recommended; or

(c) There is consummated a merger or consolidation of the Company or any direct or indirect subsidiary of the Company with any other corporation or other entity, other than (A) a merger or consolidation which results in (i) the voting securities of the Company outstanding immediately prior to such merger or consolidation continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or any parent thereof), in combination with the ownership of any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any subsidiary of the Company, at least 60% of the combined voting power of the securities of the Company or such surviving entity or any parent thereof outstanding immediately after such merger or consolidation and (ii) the individuals who comprise the Board of Directors immediately prior thereto constituting immediately thereafter at least a majority of the board of directors of the Company, the entity surviving such merger or consolidation or, if the Company or the entity surviving such merger is then a subsidiary, the ultimate parent thereof, or (B) a merger or consolidation effected to implement a recapitalization of the Company (or similar transaction) in which no Person is or becomes the Beneficial Owner, directly or indirectly, of securities of the Company (not including in the securities Beneficially Owned by such Person any securities acquired directly from the Company or its Affiliates) representing 30% or more of the combined voting power of the Company's then outstanding securities; or

(d) The shareholders of the Company approve a plan of complete liquidation or dissolution of the Company or there is consummated an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets (it being conclusively presumed that any sale or disposition is a sale or disposition by the Company of all or substantially all of its assets if the consummation of the sale or disposition is contingent upon approval by the Company's shareholders unless the Board of Directors expressly determines in writing that such approval is required solely by reason of any relationship between the Company and any other Person or an Affiliate of the Company and any other Person), other than a sale or disposition by the Company of all or substantially all of the Company's assets to an entity (A) at least 60% of the combined voting power of the voting securities of which are owned by shareholders of the Company in substantially the same proportions as their ownership of the Company immediately prior to such sale or disposition and (B) the majority of whose board of

directors immediately following such sale or disposition consists of individuals who comprise the Board of Directors immediately prior thereto.

For purposes hereof, "Person" shall have the meaning given in Section 3(a)(9) of the Exchange Act, as modified and used in Sections 13(d) and 15(d) thereof, except that such term shall not include (i) the Company or any of its Subsidiaries, (ii) a trustee or other fiduciary holding securities under an employee benefit plan of the Company or any of its Affiliates, (iii) an underwriter temporarily holding securities pursuant to an offering of such securities, or (iv) a corporation owned, directly or indirectly, by the shareholders of the Company in substantially the same proportions as their ownership of stock of the Company.

Notwithstanding the foregoing, (i) a "Change in Control" shall not be deemed to have occurred by virtue of the consummation of any transaction or series of integrated transactions immediately following which the record holders of Company Stock immediately prior to such transaction or series of transactions continue to have substantially the same proportionate ownership in an entity which owns all or substantially all of the assets of the Company immediately following such transaction or series of transactions and (ii) to the extent required to avoid the imposition of taxes or penalties under Section 409A of the Code with respect to any Award that constitutes a deferral of compensation subject to Section 409A of the Code, no such Award shall become payable as a result of the occurrence of a Change in Control unless such Change in Control also constitutes a change in the ownership or effective control of the Company or a change in ownership of a substantial portion of the assets of the Company under Section 409A of the Code.

For the avoidance of doubt, any one or more of the events described in subparagraphs (a) through (d) may be effected pursuant to (A) a takeover under Irish takeover rules; (B) a compromise or arrangement under Chapter 1 of Part 9 of the Companies Act 2014 of the Republic of Ireland or (C) Chapter 2 of Part 9 of the Companies Act 2014 of the Republic of Ireland.

7. No Shareholder Rights Prior to Delivery. The Participant shall not have any rights of a shareholder (including the right to distributions or dividends) with respect to the Performance Award until shares of Company Stock are issued pursuant to the terms of this Award Agreement.

8. Performance Award Agreement Subject to Plan. This Award Agreement is made pursuant to all of the provisions of the Plan, which is incorporated herein by reference, and is intended, and shall be interpreted, in a manner to comply therewith. In the event of any conflict between the provisions of this Award Agreement and the provisions of the Plan, the provisions of the Plan shall govern, except as expressly provided by Sections 5 and 6 of this Award Agreement.

9. No Rights to Continuation of Service. Nothing in the Plan or this Award Agreement shall confer upon the Participant any right to continue in the employ of the Company or any Subsidiary thereof or shall interfere with or restrict the right of the Company or its

shareholders (or of a Subsidiary or its shareholders, as the case may be) to terminate the Participant's service at any time for any reason whatsoever, with or without Cause.

10. Tax Withholding. The Company shall be entitled to require a cash payment by or on behalf of the Participant and/or to deduct from the Performance Award granted hereunder or other compensation payable to the Participant any sums required by federal, state or local tax law to be withheld or to satisfy any applicable payroll deductions with respect to the vesting of, lapse of restrictions on, or payment of the Performance Award, up to the maximum statutory tax rates. A Participant who is an officer or director subject to the provisions of Section 16 of the Exchange Act as of the date of the withholding requirement may satisfy the foregoing requirement by electing to have the Company withhold from delivery shares of Company Stock in accordance with Section 12(b) of the Plan.

11. Section 409A Compliance. The Performance Award is intended to comply with Code Section 409A to the extent subject thereto and shall be interpreted in accordance with Code Section 409A and Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Date of Grant. Notwithstanding any provision in the Plan or Award Agreement to the contrary, no payment or distribution under this Award Agreement that constitutes an item of deferred compensation under Code Section 409A and becomes payable by reason of the Participant's termination of service with the Company and its Subsidiaries will be made to the Participant until the Participant's termination of service constitutes a "separation from service" (as defined in Code Section 409A). For purposes of this Award Agreement, each amount to be paid or benefit to be provided shall be construed as a separate identified payment for purposes of Code Section 409A. If a participant is a "specified employee" (as defined in Code Section 409A), then to the extent necessary to avoid the imposition of taxes under Code Section 409A, such Participant shall not be entitled to any payments upon a termination of his or her service until the earlier of: (i) the expiration of the six (6)-month period measured from the date of such Participant's "separation from service" and (ii) the date of such Participant's death. Upon the expiration of the applicable waiting period set forth in the preceding sentence, all payments and benefits deferred pursuant to this Paragraph 11 (whether they would have otherwise been payable in a single lump sum or in installments in the absence of such deferral) shall be paid to such Participant in a lump sum as soon as practicable, but in no event later than sixty (60) calendar days, following such expired period, and any remaining payments due under this Award Agreement will be paid in accordance with the normal payment dates specified for them herein.

12. Governing Law. This Award Agreement shall be governed by, interpreted under, and construed and enforced in accordance with the internal laws, and not the laws pertaining to conflicts or choice of laws, of the State of Delaware applicable to agreements made and to be performed wholly within the State of Delaware.

13. Binding on Successors. The terms of this Award Agreement shall be binding upon the Participant and upon the Participant's heirs, executors, administrators, personal representatives, transferees, assignees and successors in interest, and upon the Company and its successors and assignees, subject to the terms of the Plan.

14. No Assignment. Notwithstanding anything to the contrary in this Award Agreement, neither this Award Agreement nor any rights granted herein shall be assignable by the Participant.

15. Necessary Acts. The Participant hereby agrees to perform all acts, and to execute and deliver any documents that may be reasonably necessary to carry out the provisions of this Award Agreement, including but not limited to all acts and documents related to compliance with federal and/or state securities and/or tax laws and applicable Irish law.

16. Entire Performance Award Agreement. This Award Agreement (including Exhibits A and B and Annex A) and the Plan contain the entire agreement and understanding among the parties as to the subject matter hereof.

17. Headings. Headings are used solely for the convenience of the parties and shall not be deemed to be a limitation upon or descriptive of the contents of any such Paragraph.

18. Counterparts. This Award Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original and all of which together shall be deemed to be one and the same instrument.

19. Notices. All notices and other communications under this Award Agreement shall be in writing and shall be given by first class mail, certified or registered with return receipt requested, and shall be deemed to have been duly given three days after mailing to the respective parties named below:

If to Company:

Endo International plc
c/o Endo Health Solutions Inc.
1400 Atwater Drive
Malvern, PA 19355
Attention: Treasurer

If to the Participant:

At the address on file with the Company.

Either party hereto may change such party's address for notices by notice duly given pursuant hereto.

20. Amendment. No amendment or modification hereof shall be valid unless it shall be in writing and signed by all parties hereto.

21. Acceptance. The Participant hereby acknowledges receipt of a copy of the Plan and this Award Agreement. The Participant has read and understands the terms and provisions thereof, and accepts the Performance Award subject to all the terms and conditions of the Plan and this Award Agreement.

22. No Compensation for Loss of Rights. The Participant hereby acknowledges that under no circumstances will s/he, on ceasing to be an employee or director of the Company and its Subsidiaries, be entitled to any compensation for any loss of any right or benefit or prospective right or benefit under the Plan that s/he might otherwise have enjoyed whether such compensation is claimed by way of damages for wrongful dismissal or other breach of contract or by way of compensation for loss of office or otherwise howsoever.

23. Severability. All the terms and provisions of this Award Agreement are distinct and severable, and if any term or provision is held unenforceable, illegal or void in whole or in part by any court, regulatory authority or other competent authority it shall to that extent be deemed not to form part of this Award Agreement, and the enforceability, legality and validity of the remainder of this Award Agreement will not be affected; if any invalid, unenforceable or illegal provision would be valid, enforceable or legal if some part of it were deleted, the provision shall apply with whatever modification is necessary to make it valid, enforceable and legal.

24. Data Protection. The Participant hereby acknowledges and consents to the Company and any Subsidiary sharing and exchanging his/her information held in order to administer and operate the Plan (including personal details, data relating to participation, salary, taxation and employment and sensitive personal data, e.g. data relating to physical or mental health, criminal conviction or the alleged commission of offences) (the "Information") and providing the Company and/or the Subsidiary's agents and/or third parties with the Information for the administration and operation of the Plan and the Participant further accepts that this may involve the Information being sent to a country outside the country in which the Participant provides service including to a country which may not have the same level of data protection laws as his/her home country. The Participant acknowledges that s/he has the right to request a list of the names and addresses of any potential recipients of the Information and to review and correct the Information by contacting his/her local human resources representative. The Participant acknowledges that the collection, processing and transfer of the Information is important to Plan administration and that failure to consent to same may prohibit participation in the Plan.

25. Additional Matters. This Award Agreement is intended to comply with the applicable laws of any country or jurisdiction where the Performance Award is granted under the Plan, and all provisions hereof shall be construed in a manner to so comply. The following provisions apply to Participants providing service in the country noted:

Canada:

Section 4 above shall be amended to add the following language at the end thereof as a new sub-section (g):

> (g) The Participant's date of termination of service shall be the Participant's last day of active service with the Company and its Subsidiaries and shall not include any period of statutory, contractual or common law reasonable notice or any period of deemed employment or salary continuance.

Section 10 above shall be deleted in its entirety and replaced with the following language:

> The Company shall be entitled to receive either a cash payment by or on behalf of the Participant or a sufficient amount of the proceeds from the sale of Company Stock to be acquired pursuant to this Award Agreement by the Participant's delivery to the Company of an assignment of such proceeds and an authorization to the broker or selling agent to pay that amount to the Company and to effect such sale at the time of exercise or other delivery of shares of Company Stock for any sums required by federal, state or local tax law to be withheld or to satisfy any applicable payroll deductions with respect to the vesting of, lapse of restrictions on, or payment of any Performance Award.

India:

As used herein, "Participant" shall have the meaning set forth in the Plan, except the term shall not include consultants of any Subsidiary in India.

Section 4(b) shall be deleted in its entirety and replaced with the following language:

> Termination of Service on Account of Death. Upon termination of the Participant's service on account of death prior to the either the TSR Vesting Date or the FCF Vesting Date, the Participant's Performance Award shall immediately vest in his legal heirs or nominees, subject to fulfilment of the performance conditions specified in Exhibits A and B and shall be settled in shares of Company Stock for the benefit of the Participant's estate no later than the later of the end of the calendar year in which the Participant's death occurs or the fifteenth day of the third calendar month following the Participant's death.

Section 4(c) shall be deleted in its entirety and replaced with the following language:

> Termination of Service on Account of Voluntary Retirement with Consent of Company. If the Participant voluntarily Retires with the consent of the Company, the unvested portion, if any, of the Participant's Performance Award as of the date of termination shall stand vested on the date of termination of service, subject to the fulfilment of the performance conditions specified in Exhibits A and B.

Section 4(d) shall be deleted in its entirety and replaced with the following language:

> Disability. If the Participant incurs a Disability that also constitutes a "disability" within the meaning of Section 409A, the unvested portion, if any, of the Participant's Performance Award as of the date of such Disability shall continue to be eligible to vest in accordance with the performance-based vesting conditions set forth on Exhibits A and B regardless of any subsequent termination of service, provided such Disability does not result in termination of service. In the event of termination of service, the unvested portion, if any, of the Performance Award shall vest in him on the date of termination.

Section 10 shall be deleted in its entirety and replaced with the following language:

> Tax Withholding. The Subsidiary under whose payroll the Participant is registered shall have the right to deduct or withhold from the Performance Award or payroll of the Participant an amount sufficient to satisfy income taxes required by law to be withheld with respect to the vesting of, lapse of restrictions on, or payment of the Performance Award or to satisfy any applicable payroll deductions. The obligations of the Company under this Award Agreement will be conditioned on such arrangement and the Company or such Subsidiary will, to the extent permitted by law, have the right to deduct any such taxes from any payment of any kind otherwise due to the Participant. A Participant who is an officer or director subject to the provisions of Section 16 of the Exchange Act as of the date of the withholding requirement may satisfy the foregoing requirement by electing to have the Subsidiary under whose payroll the Participant is registered withhold from delivery shares of Company Stock in accordance with Section 12(b) of the Plan.

Section 13 shall be amended to delete the term “transferees”.

Section 14 shall be deleted in its entirety and replaced with the following language:

> No Assignment. Notwithstanding anything to the contrary in this Award Agreement, but subject to the assignment of the Performance Award upon death of the Participant, neither this Award Agreement nor any rights granted herein shall be assignable by the Participant.

Section 15 shall be deleted in its entirety and replaced with the following language:

> Necessary Acts. The Participant hereby agrees to perform all acts, and to execute and deliver any documents that may be reasonably necessary to carry out the provisions of this Award Agreement, including but not limited to all acts and documents related to compliance with federal and/or state securities and/or tax laws and applicable Indian law. The rights and interests of the Participant under the Award Agreement shall be subject to compliance under the Foreign Exchange Management Act, 1999 and the related rules thereto.

Ireland:

Section 4(c) above shall be deleted and be of no force and effect.

Section 13 above shall be amended to delete the words “transferees, assignees” therefrom.

Section 14 above shall be deleted in its entirety and replaced with the following language:

> No Assignment or Transfer. Notwithstanding anything to the contrary in this Award Agreement, neither this Award Agreement nor any rights granted herein shall be assignable by the Participant. Neither this Award Agreement nor any

rights granted herein shall be transferable by the Participant in any circumstances, except on the death of the Participant.

Luxembourg:

Section 4(c) above shall be deleted in its entirety and replaced with the following language:

Termination of Service on Account of Retirement. If the Participant voluntarily retires according to Luxembourg employment law prior to the TSR Vesting Date or the FCF Vesting Date, any unvested portion of the Participant's Performance Award as of the Participant's termination date shall vest on that date and be eligible to be settled subject to the satisfaction of the performance conditions specified in Exhibits A and B, determined at a time and manner as is determined for employees generally, disregarding such termination of service.

Section 4(d) above shall be amended to (i) delete the phrase "that also constitutes a 'disability' within the meaning of Section 409A of the Code" therefrom and (ii) add the following language at the end thereof:

As used herein, "Disability" shall mean either (i) the Participant's inability to, solely because of injury or physical or mental illness, perform the material duties of his or her regular occupation in a situation where the Participant receives paid sickness, incapacity or invalidity benefits from any of the Luxembourg competent authorities for a period that lasts or can reasonably be expected to last for a continuous period of 6 months, or (ii) the Participant's *reclassement* by the competent commission following an irrevocable decision from said commission.

Section 4(e)(iii) above shall be deleted in its entirety and be of no force and effect.

Section 4 above shall be amended to add the following language at the end thereof as a new sub-section (g):

It is understood that the Participant's termination of service for any reason shall take place in accordance with applicable Luxembourg employment law rules.

Section 10 above shall be amended to add the following language at the end thereof:

For Participants subject to Luxembourg employment law, the Company shall comply with Circular L.I.R. n°104/2 dated 29 November 2017 and issued by the Luxembourg Tax Administration to the extent subject thereto and shall be interpreted in accordance with its provisions and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Date of Grant.

Section 13 above shall be amended to delete the word "transferees" therefrom.

Section 14 above shall be deleted in its entirety and replaced with the following language:

No Assignment or Transfer. Notwithstanding anything to the contrary in this Award Agreement, neither this Award Agreement nor any rights granted herein shall be assignable by the Participant. Neither this Award Agreement nor any rights granted herein shall be transferable by the Participant in any circumstances, except on the death of the Participant.

Section 24 above shall be amended to add the following language at the end thereof:

, it being understood that for the purposes hereunder any Information on the Participant shall be processed in accordance with the Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, as well as any applicable local laws.

United Kingdom:

As used herein, "Cause" shall have the meaning set forth in the Plan and, with respect to any Participant who is a party to an employment agreement with the Company, the definition of "Cause" shall include any circumstances in which the Company may terminate the Participant's employment agreement without notice in accordance with its terms.

As used herein, "Disability" shall mean the Participant's inability to, solely because of injury or physical or mental illness: (i) perform the material duties of his or her regular occupation and (ii) earn 80% or more of his or her base salary or wages in respect of his or her regular occupation, for a period that lasts or can reasonably be expected to last for a continuous period of 12 months.

Section 4(c) above shall be deleted and be of no force and effect.

Section 10 above shall be deleted in its entirety and replaced with the following:

Tax Liabilities. The Participant irrevocably agrees (A) to pay, or enter into arrangements to the satisfaction of the Company to pay, to the Company, the Participant's employer or former employer (as appropriate) the amount of any Tax Liability, (B) that the Company, the Participant's employer or former employer (as appropriate) may, if it so elects by written notice to the Participant, recover the whole or any part of any Employer NICs from the Participant, (C) that the Participant shall, promptly upon being requested to do so by the Company, the Participant's employer or former employer (as appropriate), elect (using a form approved by HM Revenue & Customs) that the whole or any part of the liability for Employer NICs shall be transferred to the Participant; (D) to enter into a joint election, under section 431(1) or 431(2) of the Income Tax (Earnings & Pensions) Act 2003 ("ITEPA"), in respect of the Company Stock delivered pursuant to a Performance Award, if required to do so by the Company, the Participant's employer or former employer, before, on or within 14 days after any date of delivery of such Company Stock. For the purposes of this section the following capitalized terms shall have the meanings set out below:

"Employer NICs": any secondary class 1 (employer) national insurance contributions that the Company or any employer (or former employer) of the Participant is liable to pay as a result of any Taxable Event (or which that person would be liable to pay in the absence of an election of the type referred to in (C) above) and that may be lawfully recovered from the Participant.

"Taxable Event": any event or circumstance that gives rise to a liability for the Participant to pay income tax and national insurance contributions or either of them in respect of: (a) the Performance Award, including its assignment or surrender for consideration, or the receipt of any benefit in connection with it; (b) any shares (or other securities or assets): (i) earmarked or held to satisfy the Performance Award; (ii) acquired pursuant to the Performance Award; or (iv) acquired in consideration of the assignment or surrender of the Performance Award; (c) any securities (or other assets) acquired or earmarked as a result of holding shares (or other securities or assets) mentioned in (b); or (d) any amount due in respect of assets within (a) to (c) above and not made good by the Participant within the time limit specified in section 222 ITEPA.

"Tax Liability": the total of (a) any income tax and primary class 1 (employee) national insurance contributions that any employer (or former employer) of the Participant is liable to account for (or reasonably believes it is liable to account for) as a result of any Taxable Event; and (b) any Employer NICs that any employer (or former employer) of the Participant is liable to pay (or reasonably believes it is liable to pay) as a result of any Taxable Event and that can be recovered lawfully from the Participant.

Section 22 shall be replaced by the following provision:

Nothing contained in the Plan or this Performance Award shall form part of the Participant's contract of employment. The Participant hereby acknowledges that under no circumstances will s/he, on ceasing to be an employee or director of or otherwise engaged by the Company or any of its Subsidiaries for any reason (including as a result of a repudiatory breach of contract by the Company or any of its Subsidiaries), be entitled to any compensation for any loss of any right or benefit or prospective right or benefit under the Plan that s/he might otherwise have enjoyed whether such compensation is claimed by way of damages for wrongful dismissal or other breach of contract or by way of compensation for loss of office or otherwise howsoever. By signing this Performance Award the Participant shall be deemed irrevocably to have waived any such entitlement.

IN WITNESS WHEREOF, the parties hereto have executed this Award Agreement as of the date set forth above.

ENDO INTERNATIONAL PLC

By: ____
Name: Paul V. Campanelli
Title: President & Chief Executive Officer

PARTICIPANT

Signature: __
Print Name: __

EXHIBIT A

(I) **TSR Performance Criteria.**

The Participant will be entitled to receive a number of shares of Company Stock as of the TSR Vesting Date, equal to a multiple of the TSR Target Performance Award achieved based on achievement of targets relating to Relative TSR (the "TSR Performance Criteria") as described below for the TSR Performance Period:

Relative TSR	**Multiple Applicable to TSR Target Performance Award**
Equal to or above 90th percentile	2
Equal to or above 80th percentile but below 90th percentile	1.61 - 1.80
Equal to or above 70th percentile but below 80th percentile	1.41 - 1.60
Equal to or above 60th percentile but below 70th percentile	1.21 - 1.40
Equal to or above 50th percentile but below 60th percentile	1.00 - 1.20
Equal to or above 40th percentile but below 50th percentile	0.5
Below 40th percentile	0

In the event that Relative TSR over the TSR Performance Period is negative, the multiple applicable to the TSR Target Performance Award shall not exceed 1.

If Relative TSR is equal to or above the 50th percentile but below the 90th percentile, the Participant will vest in a number of shares of Company Stock that is the mathematical linear interpolation between the number of shares of Company Stock that would vest at the defined ends of the applicable spectrum. No such interpolation shall occur in the event that Relative TSR is below the 50th percentile or equal to or above the 90th percentile.

The determination of Relative TSR will be made in the sole discretion of the Committee, after the end of the TSR Performance Period once the applicable year-end audit is available. The Committee has discretion to accelerate the vesting of all or a portion of the Participant's TSR Performance Award based upon the overall performance of the Company and/or the Participant or based upon any change in business conditions.

(II) **Definitions.**

For purposes of this Exhibit A, the following terms have the meanings set forth below:

"Comparator Group" shall mean the companies listed on Annex A, attached hereto. Each such company shall be included in the Comparator Group only if the company is publicly-traded at both the beginning and end of the TSR Performance Period.

"Per Share Price" shall mean the average of the closing prices of common shares for the applicable company during the thirty (30) consecutive trading days ending on the day immediately preceding the applicable measurement date.

“Relative TSR” shall mean the percentile ranking of the Company’s Total Shareholder Return as compared to the Total Shareholder Return of each company in the Comparator Group.

“Total Shareholder Return” shall mean the appreciation of the Per Share Price during the TSR Performance Period, plus any dividends paid on the applicable company’s common stock during such TSR Performance Period.

Comparator Group

1. AbbVie Inc. (ABBV)
2. Abbott Laboratories (ABT)
3. Akorn, Inc. (AKRX)
4. Alexion Pharmaceuticals Inc. (ALXN)
5. Alkermes plc (ALKS)
6. Allergan plc (AGN)
7. AMAG Pharmaceuticals Inc. (AMAG)
8. Amgen Inc. (AMGN)
9. AstraZeneca PLC (AZN)
10. Biogen Inc. (BIIB)
11. BioMarin Pharmaceutical Inc. (BMRN)
12. Bristol-Myers Squibb Company (BMY)
13. Celgene Corporation (CELG)
14. Dr. Reddy's Laboratories Ltd. (RDY)
15. Eli Lilly and Company (LLY)
16. Gilead Sciences Inc. (GILD)
17. GlaxoSmithKline plc (GSK)
18. Horizon Pharma Public Limited Company (HZNP)
19. Impax Labs Inc. (IPXL)
20. Incyte Corporation (INCY)
21. Jazz Pharmaceuticals Public Limited Company (JAZZ)
22. Johnson & Johnson (JNJ)
23. Lannett Company (LCI)
24. Mallinckrodt Public Limited Company (MNK)
25. Merck & Co. Inc. (MRK)
26. Mylan N.V. (MYL)
27. Novartis AG (NVS)
28. Novo Nordisk A/S (NVO)
29. Perrigo Company Public Limited Company (PRGO)
30. Pfizer Inc. (PFE)
31. Qiagen NV (QGEN)
32. Regeneron Pharmaceuticals Inc. (REGN)
33. Roche Holding AG (RHHBY)
34. Sanofi (SNY)
35. Shire plc (SHPG)
36. Taro Pharmaceutical Industries Ltd. (TARO)
37. Teva Pharmaceutical Industries Limited (TEVA)
38. United Therapeutics Corporation (UTHR)
39. Valeant Pharmaceuticals International, Inc. (VRX)
40. Vertex Pharmaceuticals Inc. (VRTX)
41. Zoetis Inc. (ZTS)

EXHIBIT B

The following exhibit contains the FCF Performance Criteria in respect of 2018, which is the first FCF Performance Period for the 2018 FCF Performance Award.

The FCF Performance Criteria (including any changes thereto) in respect of future FCF Performance Periods for the 2018 FCF Performance Award shall be communicated to the Participant no later than March 31st of the relevant FCF Performance Period.

(I) **FCF Performance Criteria.**

The Participant will be eligible to earn a number of shares of Company Stock equal to one third (1/3rd) of the number of restricted stock units underlying the target FCF Performance Award multiplied by the multiple applicable to the FCF Performance Award for the FCF Performance Period, which will be based on achievement of a Target relating to Free Cash Flow (the "FCF Performance Criteria") and determined in accordance with the below:

Free Cash Flow*	**Multiple Applicable to FCF Performance Award for the FCF Performance Period**
Equal to or greater than 110% of Target	2
Equal to or greater than 107.5% of Target but less than 110% of Target	1.75
Equal to or greater than 105% of Target but less than 107.5% of Target	1.5
Equal to or greater than 102.5% of Target but less than 105% of Target	1.25
Equal to or greater than 100% of Target but less than 102.5% of Target	1
Equal to or greater than 97.5% of Target but less than 100% of Target	0.75
Equal to or greater than 95% of Target but less than 97.5% of Target	0.5
Less than 95% of Target	0

*Free Cash Flow for each FCF Performance Period associated with the 2018 FCF Performance Award must equal or exceed the following minimum Free Cash Flow: 50% of actual annual adjusted net income for the relevant FCF Performance Period.

If Free Cash Flow is equal to or greater than 95% of Target but below 110% of Target, the Participant will earn a number of shares of Company Stock that is the mathematical linear interpolation between the number of shares of Company Stock that would be earned at the defined ends of the applicable spectrum. No such interpolation shall occur in the event that Free Cash Flow is less than 95% of Target or equal to or greater than 110% of Target.

The determination of Free Cash Flow will be made in the sole discretion of the Committee, after the end of the applicable FCF Performance Period once the applicable year-end audit is available. The Committee may adjust the FCF Performance Award in a manner approved by the Committee at the time of the grant of the FCF Performance Award. The Committee has discretion to increase the portion of the Participant's FCF Performance Award earned based upon the overall performance of the Company and/or the Participant or based upon any change in business conditions.

(II) **Definitions.**

For purposes of this Exhibit B, the following terms have the meanings set forth below:

“Adjusted Cash Flow from Operations” shall mean cash from operations less the following expenses: mesh and other legal settlements; unused financing fees; separation, restructuring, transaction and integration payments; and one-time significant tax refunds or payments.

“Capital Expenditures” shall mean the Company’s purchases of property, plant and equipment (including capitalized software costs).

“Free Cash Flow” shall mean Adjusted Cash Flow from Operations less Capital Expenditures.

“Target” shall mean [ ].

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002

I, Paul V. Campanelli, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Endo International plc;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's Board of Directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/S/ PAUL V. CAMPANELLI

Paul V. Campanelli

President and Chief Executive Officer
(Principal Executive Officer)

Date: November 8, 2018

Exhibit 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002

I, Blaise Coleman, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Endo International plc;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's Board of Directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/S/ BLAISE COLEMAN

Blaise Coleman

Executive Vice President, Chief Financial Officer
(Principal Financial Officer)

Date: November 8, 2018

Exhibit 32.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Paul V. Campanelli, as President and Chief Executive Officer of Endo International plc (the Company), hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Quarterly Report on Form 10-Q of the Company for the quarterly period ended September 30, 2018 (the Report) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m); and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/S/ PAUL V. CAMPANELLI

Name: Paul V. Campanelli

Title: President and Chief Executive Officer
(Principal Executive Officer)

Date: November 8, 2018

A signed original of this written statement required by Section 906 has been provided to, and will be retained by, Endo International plc and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 32.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Blaise Coleman, as Chief Financial Officer of Endo International plc (the Company), hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Quarterly Report on Form 10-Q of the Company for the quarterly period ended September 30, 2018 (the Report) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m); and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/S/ BLAISE COLEMAN

Name: Blaise Coleman

Title: Executive Vice President, Chief Financial Officer
(Principal Financial Officer)

Date: November 8, 2018

A signed original of this written statement required by Section 906 has been provided to, and will be retained by, Endo International plc and furnished to the Securities and Exchange Commission or its staff upon request.